FOVRE Bookes of HVSBANDRY,

Collected by M. Conradus Heresbachius,
Councellour to the high and mightie
Prince, the Duke of Cleue:

Containing the whole art and trade of Husbandry, Gardening, Grafting, and Planting, with the antiquitie, and commendation thereof.

Newly Englished, and encreased
by Barnaby Googe, Esquire.

GENESIS. 3. 19.
In the sweat of thy face shalt thou eate thy bread, till thou be turned againe into the ground, for out of it wast thou taken: yea, dust thou art, and to dust shalt thou returne.

LONDON.
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B G
POST . TRISTIA . LÆTA

To the right worshipfull, his very good friend, Sir William Fitz Williams, Knight.

IF such as haue painefully and faithfully of long time serued their Prince and Countrey abroad, doe most of all others deserue, beside their condigne reward, the benefit of a quiet and contented life at home, I knowe no man (good Sir William Fitz Williams) that of right may better chalenge it, then your selfe: who for the long time of your painefull seruice, the trustie discharging of the Treasureship of Ireland, and your worthie gouerment, while it pleased hir most excellent Maiestie to appoint you for the sayde Realme hir highnesse Deputie) haue so behaued your selfe, as euen your very enimies (whereof I know you had good store) haue beene forced to giue you, will they nill they, your iust deserued commendation. I leaue to remember your sundry and troublesome trauailes, your Gentlemanly minde, alwaies vnwearied and vnmated with what so euer perill or hazard happened: I passe ouer (because I know you delight not in hearing your prayses) that honourable, and worthie for euer to be Chronicled, Charge giuen vpon the Oneale at Monham, in the rescue of your miserably distressed and slaughtred companions, and Countrymen, of which there be sundry yet remaining, that will attribute the hauing of their liues (next vnto God) to the prosperous successe of your valiant enterprise: neither hath this your loyall seruice to your Prince and Countrey at any time

beene accompanied, without a feruent and zealous affection towards the Almightie, the chiefeſt and onely beautie of all mans actions. Since thus (as I ſaid) you may iuſtly challenge for the good ſeruice you haue done in your youth, a place and time of reſt and quietneſſe in your greater yeeres, and that there is, in my fancie, no life ſo quiet, ſo acceptable to God, and pleaſant to an honeſt minde, as is the life of the Countrey, where a man, withdrawing himſelfe from the miſeries, vanities, and vexations of this fooliſh and now too too much doting world, may giue himſelfe to the ſweet contemplation of God, and his woorkes, and the profite and reliefe of his poore diſtreſſed neighbour, to which two things wee were chiefely created, I thought it good to ſend you heere (as a token and a teſtimony of my thankfull minde, for your ſundry friendſhips and curteſies ſhewed vnto mee) a rude draught of the order and maner of the ſaid Countrey life, which you may vſe (if it pleaſe you) for your recreation: And afterwards (if ſo you think it meete) publiſh vnder your protection, to the commoditie and benefite of others.

Fare you well from Kingſtone.

Your aſſured louing friend,

Barnaby Googe.

The Epiſtle to the *Reader*.

I Haue thought it meet (good Reader) for thy further profite and pleaſure, to put into Engliſh, theſe foure bookes of Husbandrie, collected and ſet foorth, by *M. Conrad Heresbatch*, a great & a learned Counceller of the Duke of Cleues: not thinking it reaſon, though I haue altered and increaſed his worke, with mine owne readings and obſeruations, ioyned with the experience of ſundrie my friends, to take from him (as diuers in the like caſe haue doon) the honour and glory of his owne trauaile: Neither is it my minde, that this either his doings, or mine, ſhould deface, or any waies darken the good enterpriſe, or painfull trauailes of ſuch our Countrymen of England, as haue plentifully written of this matter: but alwaies haue, and doe giue them the reuerence and honour due to ſo vertuous, and well diſpoſed Gentlemen, namely, *Maſter Fitzherbert*, and *Maſter Tuſſer*, whoſe workes may, in my fancie, without any preſumption, compare with any their *Varra*, *Columella*, or *Palladius* of Rome. You haue heere ſet downe before you, not onely the rules and practizes of the old ancient husbands, as well Greekes as Latines, whoſe verie orders (for the moſt part) at this day we obſerue, and from whom (if we will confeſſe the truth) wee haue borrowed the beſt knowledge and skill, that our skilfulleſt husbands haue: but alſo haue ioined heere withall, the experience and husbandrie of our owne husbands of England, as far as either mine owne obſeruations, or the experience of ſundrie my friendes would ſuffer mee. And although I haue delt with manie, both Graines, Plantes, and Trees, that are yet ſtrangers, and vnknowen vnto vs, I doe no whit doubt, but that with good diligence and husbandrie, they may in ſhort time ſo bee denizend and made acquainted with our ſoyle, as they will proſper as well as the olde inhabitantes. It is not manie ages agone, ſince both the Peach, the Piſtace, the Pine, the Cypreſſe,

the Walnut, the Almond, the Cherie, the Figge, the Abricock, the Muske Roſe, and a great ſort of others, both Trees and Plants, beeing ſome Perſians, ſome Scythians ſome Armenians, ſome Italians, ſome French, all ſtrangers and aliantes, were brought in as noueltiesamongſt vs, that doe now moſt of them as well, yea, and ſome of them better, beeing planted amongſt vs in England, then if they were at home. I haue alſo been carefull about the planting and ordering of the Vine, (though ſome of my friendes would haue had it omitted, as altogether impertinent to our countrey: becauſe I am fully perſwaded if diligence, and good huſbandrie might be vſed) we might haue a reaſonable good Wine growing in many places of this Realme: as vndoubtedly we had immediatly after the Conqueſt, till partly by ſlothfulneſſe, not liking any thing long that is painfull, partly by Ciuill diſcord long continuing it was left, and ſo with time loſt, as appeareth by a number of places in this Realme, that keepes ſtill the name of Vineyardes: and vppon many Cliffes and Hilles, are yet to be ſeene the rootes, and olde remaines of Vines. There is beſides Notingham, an auncient houſe called Chilwell, in which houſe remaineth yet as an auncient monument in a great windowe of glaſſe, the whole order of planting, proyning, ſtamping, and preſſing of Vines. Beſides, there is yet alſo growing an old Vine, that yeeldes a Grape ſufficient to make a right good Wine, as was lately proued by a Gentlewoman in the ſaid houſe. There hath moreouer good experience of late yeeres been made, by two Noble and honorable Barons of this Realme, the Lord Cobham, and the Lord Villiams of Tame, who both had growing about their houſes as good Vines, as are in many places of Fraunce. And if they anſwere not in all pointes euery mans expectation, the fault is rather to be imputed to the malice and diſdaine peraduenture of the Frenchmen that kept them, then to any ill diſpoſition, or fault of the ſoyle. For where haue you in any place better, or pleaſanter Wines, then about Backrach, Colin, Andernach, and diuers other places of Germany, that haue in maner the ſelfe ſame latitude and diſpoſition of the Heauens that we haue? Beſide, that the neareneſſe to the South, is not altogether the cauſer of good Wines, appeareth in that you haue about Orleans, great ſtore of

good

good and excellent Wine: whereas, if you goe to Burges, two daies iourney farther to the South, you ſhall finde a Wine not woorth the drinking. The like is (as I haue heard reported by Maſter D. Dale, Embaſſadour for hir Maieſtie in theſe partes) of Paris, and Barleduke, the Towne beeing Southward, with noughtie Wines: the other a great waies farther to the North, with as good Wines as may be. But admitte England would yeeld none ſo ſtrong and pleaſant Wines as are deſired (as I am fully perſwaded it would) yet is it woorth the triall and trauaile to haue Wines of our owne, though they be the ſmaller: and therefore I thought it not meete to leaue out of my booke the ordering and trimming of Vines. It remaineth now (good Reader) that thou take in good part my trauaile and good will, which were cheefely employed to the pleaſuring and benefiting of thee, and not to quarrell with me, as is the maner of the moſt ſort, for euery fault and ouerſight that hath eſcaped my hands, nor to looke for any curious, or well meaſured ſtile, wherewith I am not able to ſatiſfie thee, and though I were, yet were it neither for the matter nor method neceſſarie. And therefore I truſt thou wilt accept it as it is, ſpecially conſidering, that I neither had leiſure, nor quietneſſe at the doing of it, neither after the doing had euer any time to ouer looke it, but was driuen to deliuer it to the Printer, as I firſt wrote it: neither was I priuy to the printing, till ſuch time as it was finiſhed. And therefore (though there be faultes, and great faultes in it) I am not to be charged with them, that if time, or oportunitie had ſerued, would not haue ſuffered them.

Farewell.

The names of ſuch Aucthors, and Husbands, whoſe aucthorities, and *obſeruations are vſed in this Booke.*

The Bible, and Doctors of the Church.

ARiſtotle.
Ariſtophanes.
Athenæus.
Anatolius.
Alexander Aphrod.
Alexander Neap.
Appuleus.
Ægineta.
Aelianus.
Budæus.
Cato.
Cardanus.
Caſſianus.
Celſus.
Columella.
Conſtantine.
Democritus.
Didymus.
Dio.
Dioſcorides.
Diodorus Siculus.
Faccius.
Florentine.
Galen.
Heliodorus.
Herodotus.
Heſiodus.
Hippocrates.
Homer.
Horace.
Iſocrates.
Iulius Firmicus.
Iulius Pollux.
Lucian.
Macer.
Martiall.
Mathiolus.
Nicander.
Oppian.
Ouid.
Petrus de Creſc.
Plato.
Platina.
Both the Plinies.
Plutarch.
Polibius.
Ruellius.
Solon.
Sotron.
Theocritus.
Theophraſtus.
Thucydides.
Tragus.
Varro.
Vegetius.
Virgill.
Vitruuius.
Xenophon.

Engliſhmen.

S. Nich. Malbee.
M. Cap. Bingham.
M. Iohn Somer.
M. Nicaſ. Yetzwert.
M. Fitzherbert.
M. Will: Lambert.
M. Tuſſer.
M. Tho Wherenhall.
M. Rich. Deering.
M. Hen. Brockhull.
M. Franklin.
H. King.
Richard Andrewes.
Henry Denys.
William Prat.
Iohn Hatche.
Phillip Partridge.
Kenworth Datforth.

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of the Titles entreated of in the foure Bookes following.

Firſt, Of arrable ground, Tillage, and Paſture, fol.1. vſq̄ fo.45.

2. Of Gardens, Orchardes, and VVoodes, fol.45. vſq̄ fo.105.

3. Of feeding, Breeding, & Curing of Cattell, fol. 106. vſque fo.148.

4. Of Poultrie, Foule, Fiſh, and Bees, fol. 149. vſq̄ ad finem.

The Summarie, or diuision of the Tiller entreated of in the foure Bookes following.

1. Firſt, Of arrable ground, Tillage, and Paſture, fol. 1. vſq fo. 45.
2. Of Gardens, Orchardes, and Woodes, fol. 45. vſq fo. 105.
3. Of feeding, Breeding, & Curing of Cattell, fol. 106. vſque fo. 148.
4. Of Poultrie, Foule, Fiſh, and Bees, fol. 149. vſq ad finem.

Cono. Rigo. Metella. Hermes.

METHINKETH I heare a neighing and tramCONO.
pling of horses without, goe *HERMES* go know what strangers there are.

HERMES. Sir, if my sight faile mee not, it is *RIGO*, the principall Secretary.

METELLA. A goodly matter, scarse you haue been two daies at home, and now you must be sent for againe to the Court, perhaps to be sent abrode in some embassage.

CONO. God forbid, iudge the best, it may be he comes to see me of curtesie and friendship.

RIGO. Ah maister *CONO*, I am glad I haue found you in the midst of your country ioyes & pleasures: Surely you are a happie man, that shifting your selfe from the troubles and turmoiles of the Court, can picke out so quiet a life, and giuing ouer all, can secretly lie hid in the pleasant Countrie, suffering vs in the meane time to be tost and torne with the cares and businesse of the common weale.

CONO. Surely I must confesse I haue taken a happy way, if these goods of the Earth would suffer mee to enioy such happinesse, that haue bequeathed the troublesome and ambitious life of the Court to the bottome of the sea. But what? do you intend, to bring me againe to my old troubles, being thus happily discharged.

RIGO. Nothing lesse, though I would bee very glad you should not so hastily forsake the Court, nor rid your selfe from the affaires of the Common wealth. You know wee are not borne to liue to our selues, nor at our owne pleasures: but for our country, our common weale and state whereto wee are called. There cannot be a worse thing, then for a man to suffer his country forsaken, to come into the hands of villanous persons, and to reioyce with himselfe, that beyng out of Gunshot, he hath left the hurly burly of

gouerment. And though *Cato* had no need of Rome, yet Rome and *Cato* his friends had need of him.

CONO. I graunt you, as long as yeeres and strength will beare it, we are bound to serue in our vocatiō: but as you your selfe are driuen to confesse, there is sometime a reasonable cause of giuing ouer. *Lucullus* is highly commended, that while his body was strong & lusty, he applied himselfe wholy to the seruice of his country, and that after his honorable seruice both abroad and at home, in the end he got himselfe quietly againe to his booke. And *Scipio*, who after he had cōquered both *Carthage* and *Numidia*, was content rather to leaue of and rest himselfe, then to doo as *Marius* did, who after so many worthy victories and atchiued honors, could not cōtent himselfe when he was well, but puft vp with vnmeasurable desire of glory and gouerment, would in his old age contend with young men, whereby he brought himselfe at the length to most miserable miserie. Surely *Cicero* tooke a better way by much, when after the ouerthrow of *Catelins* conspiracie, he rather contented himselfe to liue quietly at home, then by ambitious intermedling with the contentions of the common wealth, to bring himselfe in daunger of his life. The desire of bearing rule in a common weale, is to be moderated with a certaine bounded modestie, specially in this age of ours, when Courts are subiect to such enuies, hatreds, flatteries, slaūders, couetous and ambitious desires, and where no place is left for vertuousnesse and Christian simplicitie. These are the things that driue *Socrates* and *Plato* from their common weales, and doo likewise keepe me, being now of good yeeres and sickly, the Court forsaken, in this my poore cottage at home.

Lucullus.

Scipio.

Cicero.

RVGO. Yea, but age is no sufficient excuse for you to leaue the gouerning of your Country. You know ἔργα νέων βουλαὶ γερόντων, the labour of young men and the counsell of old men, and how those Common weales are safelieſt alwaies guided, where old mens heades, and young mens armes are stirring. Father *Nestor* got great commendation for his counsell at the siege of *Troy*, where as *Peleus* and *Laertes* were despised and accompted for benchwhistlers at home.

Nestor.

ἔργα νέων βουλαὶ γερόντων.

CONO. Some are tickled with glory: some with gaine, giftes, and rewardes, retaine the cockrowen Courtiers, yea such

as

as haue one of their feet already in the graue. Now if we would content our ſelues with this life, and giue our ſelues to the true and perfect life.

In Princes Courts wee ſhould not gape nor gaſe,
Nor ill ſucceſſe in ſutes ſhould vexe our mind:
No vaine nor fond deuiſe our eyes ſhould daſe,
Nor lewd affection ſhould our fancie blind.
All ſuch things ſhould bee left and laid aſide,
Now liues alas each out of order quite:
And to our ſhame the time away doth ſlide,
All ſeeke to liue, but none to liue vpright.

As the Poet excellently well writeth in his Epigram, it were the part of a mad man or a coreome to run headlong without any profite in danger, when as he may liue godly and quietly at home without all trouble, as our old fathers were wont to do.

RIGO. It is very true, the Poet accompteth him bleſſed to whom this life can happen: But in the meane time you are alone, and lead your life with beaſts, lowts of the Country, and trees, that haue ſpent al your time before among wiſe and honourable perſonages. *Socrates* affirmeth wiſedome to be learned in Cities, and not among beaſts and trees. Socrates.

CONO. *Socrates* his iudgement, though I will not gaineſay, yet it appeareth by his diſputations with *Iſcomachus* in *Xenophon*, that hee did not diſalow the Countrey mans life. And as for my liuing alone, it almoſt happeneth heere to me, as *Cicero* reporteth *Scipio* to ſay, that he was neuer leſſe alone: then when he was alone: for being alone, I haue continuall conference with the graueſt and wiſeſt men. For either I apply my ſelfe wholy to the ſacred Oracles of the Prophets and the Apoſtles, who teach the true wiſdome, by which both Kings rule, and Princes gouerne, and by which our ſoules (which wee chiefely ought to regard) are fed, which alſo ſhow vnto vs the perfect way to that euerlaſting Court aboue: or when I liſt, I haue the company of the greateſt Princes and Monarchies of the world, with whom I confer of the doubtfull ſtate and gouerment of common weales, in reading the Hiſtories and Chronicles of the world, trauelling as it were throughout all nations, or reading the workes of ſuch as write in huſbandry. The vſe of a ſolitarie life.

I occupy my minde in the beholding the woonderfull workemanship of God in Trees, Plants, and Beastes, whereby in the Creature, I acknowledge the Creator. And besides these dumbe companions, my friends come sometime to see mee, sometime Gentlemen, sometime Noblemen, sometime the Prince himselfe vouchsafeth to visit me: so that there is scarsely any day but that some come vnto me, some for their pleasure, some for good will, and some for their businesse: for to my friends and my neighbors, I neyther deny my counsell, nor my trauell. Therefore is it very expedient that good choise be made of Lawiers, and discreete men for the countrey, alwaies prouided, they giue their counsell free and without wages. Many times beside, you from the Court send me hither processe and arbitrements to be tried before me. Thus haue I in the Country sweeter and pleasanter company then you haue, either in the Court or Citie.

RIGO. Tell me then I beseech you, how you bestow your time, and how you are occupied all the day, for I doubt not but you do as much as in you lieth to spend the time as profitably as you may.

CONO. I will tell you throughly, and not dissemble with you, if you will giue me the hearing, and to begin, I will vse the words and verses of the foresaid Poet, though in other his writings scarse honest, yet in this speaking very graue and wise.

First serued on knees the Maiestie diuine,
My seruants next and ground I ouerlooke:
To euery man his taske I doe assigne,
When this is done, I get mee to my booke.

I vse commonly to rise first of all my selfe, specially in Sommer, when wee loose the healthfullest and sweetest time with sluggishnesse. *Aristotle* accounteth earely rising to be best both for health, wealth, and studie. In the Winter if I be loth to rise, if either the vnseasonablenes of the weather, or sicknesse cause mee to keepe my bed, I commit all to my Steward, whose faith and diligence I am sure of, whome I haue so well instructed, that I may safely make him my deputie, I haue also *Eurielia* my maid, so skilfull in huswifery, that she may well be my wiues suffragan, these twaine we

appoint

appoint to supply our places: but if the weather and time serue, I play the workemaster my selfe. And though I haue a baylife as skilfull as may be, yet remembring the old saing, that the best doong for the field is the maisters foot, and the best prouenders for the horse the Maisters eie, I play the ouerseer my selfe. That it is holesome to rise betimes, I am perswaded both by the counsell of the most graue Philosophers, and besides by mine owne experience. When my seruants are all set to worke, and euery man as busie as may be, I get me into my closet to serue God, & to read the holy Scriptures: (for this order I alwaies keepe, to appoint my selfe euery day my taske, in reading some part either of the old Testament or of the New:) that done, I write or read such things as I thinke most needful, or dispatch what businesse so euer I haue in my house, or with suters abroad. A little before dinner I walke abroad, if it bee faire, either in my garden, or in the fieldes, if it be foule, in my galery: when I come in, I finde an egge, a chicke, a peece of kid, or a peece of veale, fishe, butter and such like, as my foldes, my yarde, or my dairie and fishponds will yeeld, sometime a sallet, or such fruites as the garden or orchard doth beare: which victuals without any charges my wife prouideth mee, wherewith I content my selfe aswell, as if I had the daintiest dish in Europe: I neuer lightly sit aboue one houre at my meate: after dinner I passe the time with talking with my wife, my seruaunts, or if I haue any, with my ghests: I rise and walke about my ground, where I view my worke men, my Pastures my Medowes, my Corne, and my Cattell. When I am in the country, I goe euery day, if the weather be good, and no other great businesse, about my ground: if not euery day, at the least once in two or three daies: as often as I come to the Citie from the Country, I do the like, to vnderstand how my grounde is husbanded, and what is done, what vndone: neyther doe I euer goe about it, but some good commeth of my trauaile. In the meane while I behold the wonderfull wisedome of nature, and the incomprehensible working of the most mightie GOD in his Creatures, which as *Cicero* truely affirmeth, is the delicatest foode of the Soule, and the thing that maketh vs come neerest vnto GOD. Heere way I with my selfe, the benifits and wonderfull workes of GOD who bringeth foorth grasse

The best dong for ground is the maisters foot.

Academ. questio. lib. 1.

Psal.104. for the Cattell, and greene hearbe for the vse of man, that he may bring food out of the earth according to ỳ Psalme. Here he preacheth to mee.

The fruitfull Earth that tild in sundry wise,
vnto the eie hir goodly fruits doth yeeld:
The violets sweet that each where thicke do rise,
and staine with purple die the pleasant feeld,
The field with herbs, the herbs with branches braue,
The glittring flowers that shine like starres of light,
And springing fast disclose the grace they haue,
Each herbe with sundry flowre most sweet in sight.

What workeman is there in the world, that is able to frame or counterfeite such heauenly works? Who could of a slender grasse make Wheate or Bread, and of a tender twigge bring foorth so noble a licour as Wine? but onely that mighty Lord that hath created all things visible and inuisible. With these sights do I recreate my mind, and giue thankes vnto God the Creator and conseruer of all things, for his great and exceeding goodnesse, I sing the song, To thee O Lorde belongeth prayses in Sion, or, Praise thou the Lord O my soule, &c. beseeching God to blesse the giftes that hee hath giuen vs through his bountious liberalitie, to enrich the Fields and to prosper the Corne and the Grasse, and that he will crowne the yeere with his plentiousnesse, that we may enioy the fruits of the earth with thanksgiuing, to the honour of him, and the profit of our neighbour. Then returning home, I go to writing or reading, or such other businesse as I haue: but with studie, or inuention, I neuer meddle, in three houres after I haue dined. I suppe with a small pittans, and after supper I either seldome or neuer write or read, but rather passe the time in seeing my Sheepe come home from the Fielde, and my Oxen dragging home the plow with weary necks, in beholding the pleasaunt pastures sweetly smelling about my house, or my heards of cattell lowing hard by me: sometime I list to rest me vnder an old Holme, sometime vpõ the greene grasse, in the meane time passeth by mee the pleasant Riuer, the streames falling from the springs with a comfortable noyse or els walking by ỳ Riuer side, or in my garden, or neerest pastures, I cõfer with my wife or seruants of husbandry, appointing what I will

haue

haue doone: if my Bayliffe haue any thing to say, if any thing be to be bought or sold: for a good husband, as *Cato* saith, must rather be a sellar then a byer. Sometimes (specially in Winter) after supper, I make my Minister to tell something out of the holy Scripture, or els some pleasant story, so that it be honest and godly, & such as may edifie. Two or three houres after supper I get me to bed, and commonly as I said before, the last in the house, except my Thãberline and my Steward.

A good husband must rather be a sellar then a byer.

RIGO. In the meane time being far from the Church, neither can you heare the Sermons, nor be present with your wife and your household at seruice: for your owne part though ye may supply the matter with reading, yet your wife and your seruants can not so doe.

CONO. For my part (without vaunt bee it spoken, I haue seruice euery day at certaine appointed houres, where preacheth to mee dayly the Prophets, the Apostles. *Basil, Chrysostome, Nazianzen, Ciril, Cyprian, Ambrose, Austen,* and other excellent preachers, whom I am sure I heare with greater profit, then if I should heare your sir John lacklatines, and foolish felowes in your Churches. My wife also being giuen to reading, readeth the Bible and certaine Psalmes translated into our owne tongue, if there be any thing to hard or darke for hir, I make hir to vnderstand it: besides, shee hath priuate prayers of hir owne that shee vseth: in the meane time I haue one, that vpon the holy daies (if the weather or our businesse be such as we can not goe to Church) readeth the Gospell, teacheth the Catechisme, and ministereth the Sacraments when time requires: but in the Sommer time, if the weather be not vnreasonable, wee goe alwayes vpon the Sundaies and festiuall dayes to our Parish Church, where wee heare our Curate, and receaue the blessed Communion: as for my household, I bring them to this order, that they alwaies serue God before their goyng to worke, and at their comming to meales. It is written of *Anthonie* the Ermite, that being demaunded of a certaine Philosopher how hee could in the solitary wildernesse without any bookes, occupy him selfe in the study of Diuinitie: he answered, that the whole world serued him for bookes, as a wel furnished Library: in which hee alwaies read the wonderfull workemanship of God,

The saying of saint Anthony.

which in euery place ſtood before his eyes. In the like ſorte haue I my houſehold ſeruants well inſtructed in the chiefe grounds of true religion, who leaning to their vocation and innocencie of their life, not caried away with the vaine entilement and pleaſures of cities, doo behold the Maieſtie of God in his worke, and honour the Creator in his Creatures, not onely vpon the Sundaies, but euery day through the yeere, where they may alſo heare the litle birds, and other creatures in their kinds, ſetting out the glorie and Maieſtie of God.

RIGO. You ſeeme to tell me of a Schoole of diuinitie, and not of a huſbandmans Cottage, this was the very order of the Patriarkes, and the monaſteries in the Primatiue Church.

Homilie 56. vpon the 16. of Math. & in other places.

CONO. In deede *Chryſoſtome* would haue all Chriſtians, maried folkes and vnmaried, to leade their liues according to the rule and order of Monkes: but of ſuch Monkes as liued in thoſe dayes, not ſuch good fellowes as ours bee now: for the profeſſion of a Monke in that age, was no other but the life of the pureſt and perfecteſt Chriſtians, which kind of life the old Patriarkes as the Scripture doo witneſſe did lead.

RIGO. I oftentimes wondred, that hauing ſo goodly a houſe and ſo well furniſhed in the citie as you haue, what you meant to deſire rather to dwell in the Countrey: but now that I ſee the good order of your life, I leaue to wonder any longer.

CONO. It is naturall to mee, and left me by my parents, to delight in huſbandry: for my Father, my Grandfather, my great Grandfather, and as farre as I can fetch my petigree, all my Auncеſtours were occupiers of huſbandry, & were all borne and died in this houſe that you ſee.

RIGO. I remember not long ſince, being in buſineſſe with the Chauncellor *Hypſographus*, a ſober man, your neighbor, and one that delights in huſbandry, it was my chaunce to ſee your father, ſurely a man would haue taken him for olde *Laertes* in *Homer*, or rather for *Abram*, or *Iſaac*, and as the Chãcellor told me, he was foure ſcore and ten yeeres old: but ſo faire he bare his age, as I tooke him to be ſcarſe fiftie, his memory and iudgement ſeemed to ſerue him wounderous well, he would talke of the orders of the Countrey, of the antiquities there abouts, of the ſtories of ỳ Scripture, ſo ſweetly

and

and eloquently, as I was wonderfully in loue with him: he had the Prophets and the Euangelists at his fingers endes, so that I saw the noble men had him in estimation, not without great cause.

CONO. Indeed he took such delight in the holy Scriptures, as no day passed him without reading some part of them: he vsed to goe commonly euery day to the next Parish Church, neither would he misse any Sermon that he could heare-of, he brought both Preacher and Priest in to order, and caused them to frame their liues according to the rule of the Gospell.

RIGO. You paint me heere the patterne of a bishop, or an ouerseer: indeed the most part of these Priestes had need of such ouerseers to restraine their couetousnesse, the spring of all their abuses.

CONO. To returne to my quietnesse, or my husbandry from whence I digressed, doo you yet maruaile how I can delight my selfe with this so honest and profitable a quietnesse, then which in the iudgement of the holiest and wisest men, there is nothing more honest nor better, neither is there beside any trade of life more meet for a Gentleman, nor trauaile more acceptable to GOD, then is the tilling of the ground. The people in the old time (as *Cato* a man of great wisdome, and a teacher of husbandry doth witnesse) as ought as they would giue a man the name of an honest man, they would call him a good husband, comprehending in that name as much commendation, as they could giue him: besides most mightie Kinges and Emperours were no whit ashamed to professe this trade, as *Xenophon* reporteth of king *Cirus*: the like writeth *Quintus Curtius* of *Abdolominus*. *Numa* the king of the Romanes bare a singular affection to husbandry, for that he thought there was no kind of life so fit to maintaine either peace or warres, or for the prouision of a mans life, being rather a giuer of good life, then richesse. Moreouer *Hiero*, *Philometor*, *Attalus*, *Archilaus*, and a great number of Princes more, were delighted with the profession of husbandry: this knowledge is also highly commended by *Homer*, the verie fountaine in his time of wisedome, whereas he describeth *Alcinous* the king of the *Pheaces*, whose delight in the planting & pleasures of his orchards was wonderfull. And *Laertes* the old man that wyth his continuall occupying of husbandry, brought

The commendation of Husbandry.

Emperours & Kings professors of husbandry.

brought his mind better to beare the absence of his sonne. *Hesiodus* in his worke Πὸ ἔργων καὶ ἡμερῶν giueth great prayse to *Astrea*, that being banished the citie, gaue him selfe to the life of the countrey: Yea, the ground hath before time been tilled by the hands of Emperors, the Earth in the meane time reioysing to be torne with a victorers shaare, and to be plowed with the hands of a triumphant conquerer, either because they dealt with the like regard in their seede, as in their wars, or vsed such diligence in the corne fields, as they did in the camp, or els beecause all things handled with honest and vertuous fingers prosper the better, beeing more carefully looked to. *Serranus* when he was called to honor, was found sowing of seede. The *Dictators* office was brought by the purceuant to *Cincinatus* beeing all naked and besmeared with sweat and dust. The purceuants had first their name of calling Senators and Gouernours out of the Countrey to the Citie. In like sort had this name at the first, the *Fabij*, the *Pisons*, the *Curij*, the *Lentuli*, the the *Ciceroes*, the *Pilumni*, and other auncient houses. *Horace* telleth, that of husbandmen haue been bread the valiantest and worthiest souldiers, affirming that the hand that hath been vsed to the spade, prooueth often of greatest value in the field. *Homer* reporteth a great valiancie in *Vlisses* his net-heard in the slaughter of those fellowes that would haue rauished his maistresse. Most certain it is, that a great number of Emperors haue sprung from the plow. And to let others goe it is knowen that the Emperors *Galerius* and *Maximinus*, came both of them from poore Herdmen to the imperiall dignitie. The like is written of *Iustine*, *Constantianus*, *Probus*, and *Aurelianus*. The stories report, that *M. Curius* the Emperor was found in his house boyling of a rape roote, when he refused the great summes of gold brought by the Samnits Embassadors. What should I speak of the antiquitie of it: the holy Scriptures declare husbandry to be the ancientest of all trades. And to begin with the very beginning of man, & that neither *Osiris*, nor *Dionysius*, were the first founders of this knowledge, as the Painims fable, but that the most mightie Lord himselfe did first ordaine it: for *Adam* and his sonnes were all husbandmen, *Noe* was a planter of vines, *Abraham*, *Isaac*, and *Iacob*, were sheepheards, *Saul* from his Asses, & *Dauid* from his sheep, were called to ỹ crown, *Elius* & *Amos*

Serranus.

Cincinatus.

Husbandmen come to be Emperors.

The antiquitie of Husbandry.

The first planter of Vines.

of

of shepheards were made prophets. *Ozias* as we read professed husbandry. *Iesus* the sonne of *Syrach* commending husbandry aboue the rest, saith, he customably vsed himselfe to hold the plow, to driue the cart, and to keepe cattell: but what needs we more? Our Sauior *CHRIST* himselfe glorieth to be the sonne of a husbandman, and frameth his parables of planting of vines, of sheepe & shepeheards: moreouer, as it is in Luke, our Lord seemeth to be a teacher of husbandry, where he sheweth, that trees are to be digged about and dunged, that they may prosper the better. For sith this knowledge is of all other most innocent, and without which it is most plaine we are not able to liue: the best and the godliest men haue alwaies imbraced it, and the old Fathers haue euer counted it the very Cosen German to wisdome. *Cicero* calleth it the Mistris of Iustice, diligence, and thriftinesse: some others cal it the mother and nurse of all other arts. For whereas we may liue without the other, without this we are not able to sustaine our life: besides, the gaine that hereof ariseth, is most godly, and least subiect to enuie, for it hath to deale with the earth, that restoreth with gaine such things as is committed vnto her, specially if it be furthered with the blessing of God. The onely gentilmanly way of increasing the house, is the trade of husbandry: and for this cause they were alwaies accounted the perfectest Gentlemen, that, content with the liuing their auncestors left them, liued in the Countrey of their landes, not medling with figging, chopping, and changing, nor seeking their liuing by handycraftes. *M. Varro* in his time saith, there was great complaint made, that the Fathers forsaking the Plough and the Sicle, began to creepe into the Towne, and busied themselues rather with Pageants and Midsommer games, then with the Vineyard or the Field, whereas the Gouernours of Rome so deuided the yeere, as they assigned onely the ninth day for businesse of the Citie, and the rest of the time for the tillage of the country, whereby being hardened with labour in peace, they might the better be able to abide the trauaile of warres. Which countrey people were alwaies preferred before the people of the Citie, and more Nobilitie thought to be in them that till the ground abrode, then in those that liuing idely within the walles, spent their time vnder the shadowe of the penthouse: except a man will, with the common sort,

Husbandry the mother & nurse of all other arts.

The worthinesse of husbandmen.

sort, thinke it more honest to get his liuing with the blood and calamitie of poore soules, or not daring to deale with the sword to make his gaine of marchandize, and beyng a creature of the land, contrary to his kind giue himselfe to the rage of the Seas, and the pleasure of the Windes, wandering like a bird from shore to shore, and country to country, or to follow this goodly profession of bawling at a barre, and for gaine to open his iawes at euery bench. Surely as I said before, this onely hath beene euer counted the innocentest trade of lyfe, of all men, and in all ages. By husbandry were made rich the godly Fathers, *Abraham*, *Loth*, *Iacob*, and *Ioab*: and most certain it is, that this profession and this gaine is most acceptable to God, when he commaunded *Adam* to till the ground, and to get his liuing with the sweat of his browes. Thus is husbandry of such authority, as God with his open witnesse hath allowed it, and afterwardes by his seruant *Moses* hath added his blessing vnto it, saying, I will giue the ground my blessing in the sixth yeere, and it shall bring foorth the fruites of three yeeres. And againe, If you will keepe my commaundements, I will sende you raine in due season, and the earth shall yeeld hir increase, and your trees shall be loden with fruit, the threashing time shall last till the vintage, and the vintage shall endure till the sowing time, and you shall eate your bread with plentiousnesse. What can there be now more pleasant to a Christian man, than to get his liuing by such meanes as he knoweth doth please God, and to play the Philosopher in the most sweet contemplation of the benefits of God, and to acknowledge and reuerence the wisedome and power of the diuine Maiestie, & his bountiousnesse to mankind, to giue him thanks and praise for his goodnesse, the very hearbes and creatures in the field in the meane time preaching vnto vs.

Gen. 3. Husbandry pleasing to God.

Leuit. 26.

RIGO. You frame me here of a husbandman a diuine, & almost bring me in mind to become a husbandman, who alwaies hitherto with the common sort, accounted this husbandry to be a beastly and a beggarly occupation.

CONO. What diuinitie there is in it, and what a field of the acknowledged benefits of God, you haue heard. That the common sort do thinke it a beastly and beggerly kind of life, it is no maruell, sith the common people do neuer iudge a right. The cõmon people

doo

doo woonder at the pompe of the Court, and iudge them for the happiest men, that deckt with gold and purple, are in greatest fauour with Princes, and Officers, & Councellors to them, little knowing in the meane time what heaps of sorowes lies hid vnder that braue and glittering miserie. The common sort preferreth shameful and beastly delicasie, before honest and vertuous labour, ioying to consume the night in dronkennesse, lechery, and villanie, and the day in sleepe and pastime, thinking such happy, as neither behold the rising nor setting of the Sunne. But those that are of sounder iudgement, account the husbandman most happy, if they knew their owne felicitie, to whome the Earth in a farre quieter maner doth minister a sufficient liuing.

And thongh with gorgious gates the building high,
With earthly greetings alwaies doe not flow,
Nor seeling garnisht gay with imagrie,
Nor rich attire we see, nor costly show:
Yet stedfast state and life vnskild of guile,
With wealth ynough and pastures wide at will,
And people strong traind vp to paine and toile,
And youth with diet small contented still,
Where Godly zeale and vertues all did dwell,
When Iustice last did bid the world farewell.

As the Poet hath most grauely written in the praise of the husband. *Aglius Sophidius* was iudged happy by the Oracle of *Apollo*, because he occupied a small corner of *Arcadia*, but yet sufficient for his liuelod, where he spent his life without euer comming abroad: whose order of lyfe sheweth, that he was neither vered with greedy desire, neither with any other trouble of mind, as *Plinie* witnesseth, But I hold you to long with cõmendation of that which of it self is sufficiently commended. Haw, wife, I pray you let vs go to dinner. Georg. 2.

METELLA. You shall sir by and by God morrow maister *RIGO*, I thought *Xenophustus* had beene here, who vseth to fetch my husband away, he hath by chaunce beene now at home a weeke or twaine, which some misliking, preferre him to most paineful and troublesome businesse, procuring him to be sent in embassage, beyond the pillers of *Hercules*, & (which they would be loath to beare themselues) they cast all vpon his backe as a common packhorse

who

who beeing now old, reason would he should bee spared and suffered to bee in quiet, that beeing at the last free from the turmoiles of the world, he might giue him selfe to his prayers, and prepare him selfe for heauen.

RIGO. It were more for the benefit of his Country, that master *CONO* came oftner to the court, but he is the seldomer there, because he taketh such pleasure in his husbandry: howbeit, I came for no such purpose, but onely to visite him, being my old friend.

CONO. You must beare with a womans babling.

RIGO. I pray you, since it is not yet dinner time, let vs walke about, that I may view your house till dinner be readie.

CONO. If it please you, I will shew you my house, where I haue appointed my kingdome.

RIGO. Now surely you haue as happie & as pleasant a kingdome as may bee.

Who is happy

CONO. In deed I confesse my selfe happy in this, that cõtenting my self with my poore estate, I desire no more: for as he saith.

Horace.

The man that most doth heere possesse,
Thou canst not iustly happy name,
But hee whom God with gifts doth blesse,
And well doth know to vse the same:
Him maist thou rather rightly call,
A happy man aboue them all.

Surely I, in this my kingdome, or rather poore cottage, am more happie then a great sort of Kings & Princes of the world, that are Lords of so many & so large dominions. Riches are not to be measured by their multitude, but by the mind of the possessor. And as *Dauid* saith, a little is better with the godly, thẽ the great riches of the wicked, *Cincinatus* occupied onely 4. acres of ground. *Socrates* hauing but 20. markes in all the world, was coũted a rich man. So I with *Virgil* doo commend great possessions, but had rather occupie little. Therefore looke not to see here the house of *Lucullus* or *Hyrcius*, which is reported to be sold for 4000000. *HS.* Such stately dwellings and marble floores, as *Cicero* saith, I despise.

Who is rich.

RIGO. Notwithstanding, here is al things faire, and as it appeareth commodiously built.

CONO. For my part, I build my house, as they say, according

to

to my purſe, agreeable to my calling, and to my liuing I will ſhewe you in order how I haue caſt it, following the aduiſe of *Iſcomachus* in *Xenophon*, whom *Cicero* doth greatly commend. And firſt, the ſeate of my houſe hath mooued me to build it after this ſort. *Cato* would haue a man long in determination to build, but to plant and ſow out of hand. Our fathers here before obſerued the ſame, and ſeemed to follow the counſell of *Cato* and *Columella*, with whom agreeth alſo *Plinie*, that the owner build his houſe in good order, ſo as neither the houſe be to great for the land, nor the land to much for the houſe. And herein it is written, that *L. Lucullus*, and *Qu. Scæuola*, were both to blame: for one of thē had a greater houſe then was anſwerable to his liuing: the other, which was *Scæuola*, built a ſmaller houſe then his liuing required, where both are vnprofitable to the maſter: for the great ruinous houſe, not onely is more chargeable in building, but alſo aſketh greater coſt in the maintaining. Again, if the houſe be to litle, it will be a diſtruction and loſſe of your corne and fruit: therefore it is greatly to purpoſe, in what ſort we build and ordaine our houſe. *Cato* would haue the houſe ſo ſeated, as the ayre be good about it, and (if it may be) placed at the bottome of a hill, looking directly South, and in a holeſome corner. *Varros* mind is, to haue it placed toward the Eaſt, that it may haue the ſhadowe in Sommer, and the Sunne in Winter: with whom *Columella* agreeth, ſaying, that if abilitie ſerue the ſeate is to be wiſhed in a holſome place (for *Cato*, as ſhall hereafter be ſhewed, would haue healthie ſtanding chiefly regarded) with a fruitfull mould, ſome part of it champion, ſome hillie, lying Eaſt or South, well watered and woodded, and ſtanding not far of from ſome hauen, or nauigable riuer, to the end he may cary & tranſport ſuch things as him liſteth. *Cornelius Tacitus* writeth, that the Germans were woont to build their houſes, as the Hill, the Riuer, the Wood, or the Lake, would beſt ſuffer them.

The order of building of a houſe for the countrey.

The ſeate of a houſe.

RIGO. Hereof I think ſprang at the firſt ſo many ſurnames as are at this day deriued from Mountaines, Riuers, Lakes, and Woods.

CONO. It may be, yet others do counſaile, in no caſe to ſet your houſe neere a Marſh, or a great riuer: for the Fennes and Marſhes in the heate of the yeere, doe ſend foorth peſtilent & deadly

vampes,

dampes, and a great number of venomous creatures: which dying, for lacke of their old moisture, infecteth the aire, and breedeth sundry and strange diseases. *Homer* affirmeth very truly, that the aire which in the morning commeth from the Riuer, is very vnholsome and dangerous: and therefore if the house must needs be built neere a Riuer, they would haue such heede taken, as the Riuer rather stand on the backside of the house, then before it: and that the frunt of the house be turned from the hurtfull & vnholsome winds, and placed towards the healthiest quarters. Since all waters commonly with dampish vapours in Sommer, and stinking cold mists in Winter, except they bee well purged with holsome Windes, doe infect both man and beast with pestilence: best is it therfore in good and healthie places, to set the house towarde the East or the South, and in suspected aires to place them against the North. From the Sea it is good to bee as farre as may be, because the windes that blowe from the Sea, are vnholsome, and the space lying betwirt you and it, yeelds alwaies a loathsome aire. You must beware besides, that you set not your house by any great hie way, least you be molested with passengers, & troubled oftentimes with more guests than you would haue.

RIGO. As far as I remẽber, the old felowes did measure the goodnesse of their dwelling, by the qualities of their neighbours.

Neighborhood.

CONO. You say very wel, Indeed I had almost forgotten it, a froward knaue to a mans neighbour, is not one of the least mischiefes, as shall bee said in the end of this booke. I haue knowen sundry good men desirous of quietnesse, that haue forsaken good dwellings, rather then they would abide the iniuries and troubles of such companions: wherefore *Hesiodus* had some reason in saying.

Τόσσα κακὸς γείτων ὅσσον τ' ἀγαθὸς φίλον ἔπλετο.

As great a mischiefe is a froward knaue,
As is the ioy a neighbour good to haue.

But you meruaile what I meane by such a long preamble, surely I am the longer in this matter, because you should vnderstãd the reason of building of my house. For whereas there are sundry purposes of building, & some build for pleasure, some for wantonnesse, & some for necessitie, I thought it good to recite the minds of the old writers,

writers, concerning the building of a house. And when as euery one will not suffer such curiositie as they require in ỹ placing of a house, some building vpō riuers, some without or within the Marsh wals, who can not shun the neighborhood of the riuer or the sea, some in Lakes, some in Woods, and some building vpon Mountaines, are driuen to supply the defect of nature with art and industrie, I my selfe sith I can by no meanes auoid the neerenesse of the riuer, doo seeke as much as in me lies, to turne away the discommodities: and because I feele the discommoditie of the rising of the floods, I haue set my house in this place without the banks, and mounted it as hie as I could: and least the rage of the water, & force of the ice should beare it away, I haue planted round about it great trees: and that I might shun the damps of the ground, and the blasts of vnholesome winds, I haue turned my doores and my windowes to the holsomest quarters.

RIGO. Surely, either you, or your ancestors haue both commodiously and handsomly placed this house, for the front is double, one part looking towards the East, the other towards the South, and so built with Galeries and Gables, as it both receiueth the Sunne in Winter, and the shadow in Sommer: besides, you haue a faire porch as you enter in, that keepeth away the wind and the raine from the doore.

CONO. All the one side, if you marke it, where the front is, lieth South, receiuing from the first corner, the rising of the sunne in Winter, declining somewhat frō the West, wherby it is warme in Winter, & not troubled with ouer great heat in sommer: for this kind of building hath an equall medley of the Winter winds and sommer winds, so that it receiueth the coole winds in sommer, & is not subiect to the bitter blastes in winter, though there be somthing in it that might be amended, and that doth not well please mee.

RIGO. Some part of the building, me thinketh it is, after the Italian maner.

CONO. Some part of it being ruinous, I built after my fancie, and such as I found sound, I thought inough for me to keepe the reparations.

RIGO. I pray you proceed wō the describing of ỹ rest. This base court seemeth also to me to be after the Italian fashiō wō two gates.

CONO. This Court I thus deuiſed my ſelf. There was a kind of Court before, but not ſo commodious: therefore I made a ſquare wall here with a great gate, for the bringing in of my cariages, & a leſſer for people to paſſe in & out. In the void place here beſides the porch, I haue made a litle walke, couered with a Vine, with diuers ſeats in it for ſhadow, where I many times walke & talke with ſuch ſuters as I haue: I haue in it a table of ſtone to ſup vpon when I am diſpoſed. Ouer againſt the gate, as you ſee, at the ſouth ſide of the Court, there is a Backhouſe, and a Cornemill, with Ouens for bread, and other baked meats, there is alſo a Brewhouſe with an Oaſt for drying of Malt to make Beere with.

RIGO. Surely all very handſome, and in very good order.

CONO. Theſe offices (for feare of fire, you ſee, are all ſeuered frō the houſe: there is hereunto adioining a very faire Well, which beſides the ſeruice here, doth alſo ſerue my Kitchin, & other houſes of office: for within the houſe, I haue neither well nor fountaine, which is a great diſcommoditie, ſuch as I would giue a great deale of money to remedie, both for health and coolneſſe in ſommer, & for watering my Gardens & my Orchards. Water is one of the principaleſt things to be cared for, as the greateſt cauſe of health both in man & beaſt: but this want is ſupplied partly by a good well without, and partly by Ceſterns receiuing the raine water that fals in certaine conduits and pipes, which water is moſt wholeſome for the bodie: and beſide, the riuer is not far of.

RIGO. Come on I pray you, let vs ſee this backhouſe, I heare that you haue a new and ſtrange faſhioned mill of your owne deuiſe.

CONO. You ſhall ſee it. When as in a great houſe, there is great need of Corne milles, and the common Milles, beyng farre of, the way fowle, and I at mine owne libertie to grinde at home, or where I liſt, thinking to make a mill here at home, when neither place nor authoritie will ſerue mee to build either a water mill or a wind mill, and a Querne, or a hand mill, doth but a little good: and to build a horſe mill were more troubleſome. When I ſaw the wheeles that they vſe to draw water with, turned with Aſſes or men, I thought in the like ſort the wheele of a mill might be turned, & after this ſort deuiſed I this engine, which a couple of Aſſes,

guided

guided by a boy, do easily turne, and make very fine meale, sufficient for mine owne house, and most times for my neighbours, whome I suffer to grinde toll free.

RIGO. Surely I like well your deuice. What will not the diligence of man bring to passe?

CONO. I find it profitable vnto mee, but because it is not the speediest way of grinding, I haue beside a horse mill, which if need require is turned about with a Jade or two.

RIGO. Lo here is a great lead placed handsomly in a brick furnace in the corner, which I thinke serueth to brew with all.

CONO. Indeed to that end is it most occupied, but it serueth other turnes beside.

RIGO. There is a Hopper (methinketh) ouer the top of the Malt, where to serueth it?

CONO. It serueth to conuey downe the Malt, after it is watered vnto the hearecloth, where it is dried.

RIGO. Wherefore serueth that great Tonne?

CONO. To water the barly in when need is, otherwise it serueth for a mash fat. Here by is a backhouse and a pastrie with two ouens, one seruing for houshold bread, the other for manchet for mine owne table, and for tarts and fine bakemeats. Here are also troughs to keepe meale in, and troughs to lay leauen in, and there is a faire table to mould vpon.

RIGO. All is handsome: but what meane this building about your Court?

CONO. These buildings seuered from the rest, do serue for ghest chambers, with a chamber for my bote house, this side you see lieth against the setting of the Sunne in sommer, where the Sunne may lie from noone till night.

RIGO. But that little Ile moated, about, and seuered from the court with a Bridge, seemeth to be more gorgiously and sumptuously built, I take it to be your own lodging, where you, your wife, and your seruants meane to lie safely.

CONO. It is euen so, and therefore it is built vpon a hygher ground, both for the safegard of the foundation, and for the better ayre and fairer prospect: beside, my garden and my orchard are adioyning to it, which with the sweet smell of the floures, and the faire

beautie of the trees, bringeth both health & pleasure. The windows for the most part open all East, and some of them North, very few West, except from such Chambers or galleries Southward, where I dine & sup, to receiue the sunne in winter abundantly, & in Sommer very little: the Tower that you see serueth for my Douehouse.

RIGO. The great flights of this house must needs fill the masters purse, and serue the Kitchin well.

CONO. Indeed, if as that noble and passing well learned *Varro* affirmeth, they might be sold as in some ages they haue beene at eight pound a payre, or that a man might meete with such fooles, as *Columella* writeth of, that haue giuen 40. pound for a payre, I graunt I could make a good handsome gaine of them, but as they be, they hardly serue mine owne table.

RIGO. What doth not the mad desire of delicasie procure? euen in our dayes of late I haue heard, there was threescore Florens giuen for a paire.

CONO. I will keepe you no longer heere about mine owne lodging, you haue seene a great number of better houses, and peraduenture had rather ouerlooke my outhouses.

RIGO. I had so indeed, you haue, I see, deuided your house into three parts.

CONO. So I thought it best, one for my selfe, another for my husbandmen, and the third for graine and fruit.

RIGO. What meaneth this Cell here so handsomely built at the entrance?

CONO. This is sir, my Bailiffes lodging, I lay him by the gate, that he may see who goeth in & out, & what is brought and goeth foorth, from thence he may also looke into the Kitchin, & see and heare what is there done: for beside the meat that is dressed, there are other things done there in the winter mornings. Ouer my gate I haue laid my Steward, from whence he may looke in the Court, and to the gate, and ouersee his neighbour the Bailife.

RIGO. Marry sir here is watch and ward indeed, this I think you learned of *Varro*, for it is a part of his order.

CONO. Thus experience teacheth. Here by is my storehouse.

RIGO. Merciful God, what a sort of tooles haue you heere?

CONO. *Hesiodus* would haue a husband haue al his furniture

ready,

ready, and will not haue him borrow in any case.

Μὴ σὺ μὴ ἀπ' ἄλλου δάνεα, ἢ ἀρνήσασθαι σὺ δ' ἔπειτα,
Ἢ δὴ ἔπειτα κακηγορίην, μυθεῖσθαι δ' ἐπέεσσιν.

Of others borrow not, least they refuse to lend,
So thou shalt want, the time shall passe, and businesse neuer end.

Therefore I haue so furnished my Bayliffe, as he hath of euery sort two. *Marcus Varro* diuideth his husbãdry necessaries into three parts: vowels, where he puts his owne seruants, and such as he hireth: halfe vowels, where his working cattell be: and mutes, be these that you see, whereof the smaller sort be these, axes, hatchets, and sithes, of all sortes, corne sithes, grasse sithes, stubble sithes, hãdbils, sickles, kniues, peasehookes, spades, shouels, wedges, dragghookes, great sawes, lesser sawes, handsawes, timber sawes, pitchforkes, iron hookes, iron forkes, twybilles, doong forkes, tonges, sheares, spsars, mattocks, files, cleauers, clasps, launcets, stringes, cutting knives, gelding tooles, clipping sheares, leauers, pyelles, rulers, garden rakes, hammers, chippe ares, winches, pulleyes, wheeles, rakes, single and double, yokes, collers, bridle reins, headstalles, halters, traaces, coyres, Haames, Baskets, Fannes, Whips, Flayles, Strikes, Spoakes, Drawing knives, Sackes, Wallets, Bottels, Weedehooks, Brakes, Hempe betelles, Distaues, Spindles, Wharls, Fireshouels, Firestones, Gredirons, Handbarrowes, Doong Cartes, Wheelbarrowes, Haundes, Hampers, Ropes, and Line, of all sortes.

The sortes, & partes of Plowes and Waines, I will shewe you when we come into the Court next the Heibarn, Hogsheds, Tõnes, and Uessels, for Wine, Beere, and Water, Pipes, Tonnels, and such like, shal likewise be shewed you, when you come to the Brewhouse, and Wineseller. With Colerakes, Siues, Sercers, Boulting tubbes. Boulters, that you shall see in the Backhouse, and instruments for all other purposes laid vp euery one in his place, till they be to be occupied, for it is very necessary to haue of euery sort two, as the number of your seruants and necessitie requires: that if one be lost or broken, you be not driuen to go aborrowing, or to leaue your worke, wherby your men shall be idle, while your tooles be a seeking. For to runne euery day to the towne to get new, is not for a husbãds profit. Beside in the meane time your seruants loiter,

and lose more then the value of their tooles.

RIGO. Truely they be all placed in good order.

CONO. I place first by themselues, such are most in vse, that they may be the readier, & next to them, such as be occupied once a moneth, or in a yeere: I giue the keeping of them all by tale, to my steward or my bayliffe that they may deliuer them out as need is & lay them vp againe, and charge them in any case to looke to them euery moneth, that they may mend what is amisse in them.

RIGO. Order is a iolly felow, & no goodlier a thing in a man, then to doo euery thing orderly, and to lay vp euery thing in such order, as it may redily be found, of which a singuler example doth *Iscomachus* shew in *Xenophon*, in his Phinician barke, wherein a wonder it is to see what a deale of stuffe he hath bestowed in so smal a vessell: he carried with him all the furniture that a man should need, & euery thing in such order placed, as they were at hand when need was, without any trouble.

CONO. I my self haue an inuentory of all my husbandry implements, & so hath my baily and his wife, my steward hath the key of the storehouse, & deliuers out, and receaues as I told you, what euery man needs: for I willingly neither borow nor lend: I haue a neighbour or twaine, of whom sometime I borow, and lend again: but except them, to none as *Cato* teacheth mee.

RIGO. The same *Cato* also as I remember, teacheth to know a mans husbandry by his tooles, and therfore by your great number of tooles, a man may gesse you haue a great deale of occupying.

CONO. The double number of them makes the muster the greater: otherwise, if they were but to serue the turne they would not seeme so many.

RIGO. I pray you goe forward with your description.

CONO. You see a void roome before the kitchin which is an entrie both to the Kitchin, to the Folkes Chamber, and to the Orehouses, which ought to be neere together, if any misfortune should happen to the Cattell in the night, that my mē might speedely help them.

The Kitchin. *RIGO.* The Kitchin is very well handled, in that you haue so well pargetted the roofe.

CONO. It is because I haue a great number of seruaunts,

which

which for lacke of other roome, doe dine and sup heere: beside, the pargetting or seeling, is a good saferie against fire.

RIGO. Heere is a good handsome roofe by the Chimney, well stored with redde Hearing, Bacon, and Martilmas beefe, there is also a handsome sincke by the Kitchin.

CONO. This lettised wall that you see, ioyneth to my Bayliffes chamber, so that hee may see what is done in the Kitchin, and about the house. Hereunto is also ioyned my Larder, a vault with three roomes, one seruing for Butter & Milke, the other for Beere and Wine, the third for to keepe flesh in: heere haue I no windowes to the South, nor to the West, but all to the North, and to the East, because these quarters are least subiect to corruption, and will longest preserue any thing. Aboue in the loft ponder, do I lay my Corne vpon a faire floore, closely fenced and seeled against mise, receauing the light by Lattisse windowes from the North. Hard by, is an other loft very close, with like windowes toward the North, seruing for my fruite: for that quarter is colde, and not moyst, whereby it preserues best, both Meate, Corne, and Fruite. Now if you will goe through this doore, you may behold the backside of my house: loe heere a faire threshing floore, whereupon my corne is sundry times threshed, fanned, and winnowed, and many other thinges done, chiefely in the Winter mornings, though I haue beside a threshing place in my barne. On each side, are lodgings for my seruaunts, and other roomes and lofts for straw and fodder for my Cattell: and there by the stables, are also seruants lodgings on euery side, and my maides chamber neere the Kitchin, and the washing house. You see this forestall closed round about, to the end that the cattell, when they bee watred and put forth, while their houses be made cleane, may be in safety. And here I keepe also Geese, Duckes, Peacocks, Turkicoks, and other poultrey. It is as you see, so enclosed with stables, barnes, and other houses, that nothing can get out. *Varro* will in any case haue two Courts, an inner Court with a litle pond in it of standing water, or running water, in maner of a Fishepond, and there he would haue Horse and Oxen, comming from the field, or stable, to be watred & washed, and to serue likewise for Sheepe, Swine, & Geese. In the vtter Court would he haue a lake to cast in wheeles, staues,

Larder.

Corneloft.

Appleloft.

and peeces of timber, for instruments of husbandry, that they might be their seasoned. This court he would haue often strawed with straw, and Chaffe, that being trampled with cattell, it may serue to lay vpon the ground. You see in this court a double doungbill, one of them newly throwen out of the stables, an other old, one seruing for the feeld: for new doung is nothing so good as the old, for manuring of the ground.

RIGO. What meanes these twigges, bowes, and strawes, cast vpon the doung?

CONO. This preserues the doung, that the iuice that the ground requires, be not sucked out of the sunne: & hither also runs the water from the laundry to moist it the better. *Varro* would haue here also a lodging for seruants. But least we tarry to long among the doungbilles, let vs goe see the other buildings about the court.

Barnes. These great roomes that you see, be barnes to lay corne in. In some places, they vse houses, in others againe, stackes set vpon props, which they call mowes: but the houses are a great deall better.

Stables. Next to the barnes, are the stables, standing arow round about the court. And because *Virgil* would haue the stable stand toward the South, and *Vitruuius*, neere the fire, I haue folowed their order in building my stables. And first haue I set here my stable for my cart horse. I haue an other stable neere my owne lodging, for my Horses of seruice, and hackneies.

RIGO. That seemeth to bee very handsomely built.

CONO. The next are houses for my sheepe, and next them for kine, calues, and heyfers. There is a hogstie with two roomes, one for my farrowing sowes, the other for Hogges, and boyes. There is also a third stie, not farre from the washouse, for the fatting of my Porkes: euery kind hath their keepers lying neere them, that they may be at hand whatsoeuer chaunceth. Last of all there stands my heybarne, which hath in the vpper roomes my Hey, and beneath, waines, carts, carres, waggons, coches, harrows, sleds, ploms, rowlers, wheeles, naues, cartshoes, pokes, rakes, plowbeames, and such other like, which are there safe from wet, and from pilferers.

RIGO. I pray you who doth looke to all this geare, and keepeth euery man to his worke?

CONO. My Bayliffe, as I told you before, ouerseeth both my worke

worke, and my workemen: besides I haue a Steward that looketh to the receauing of my reuenues and commodities.

RIGO. Your bayliffe had neede to be a skilfull & a trusty man.

CONO. You say true, for as *Xenophon* saith, the choise of a Bayliffe and a Phisition ought to be one: you must choose such a one, as being a very expert husbandman, may well be able to take the charge, and not to be ignorant of those things himselfe, that he commandeth others to doo, for nothing is well taught or learned, without example. For as *Cato* saith of a husband of the old stamp, it goeth ill with that maister whom the Bayliffe must teach. As *Iscomachus* being demaunded of *Socrates*, whether he would buie a Baylie, as he would hire a Smith, or rather teach him him selfe at home? He answered he would haue him of his owne teaching. The choise of a Bayliffe of husbandry.

RIGO. But this is after the old world, wherein no man was vnskilfull: but it is a wonder, how you that haue alwaies been brought vp in princes affairs, could in these daies (when very few, except plowmen, and such as haue no other trade of lyfe, haue any skill in it) apply your mind so vnto it, as a man would think you had neuer minded any other profession.

CONO. Surely I think hee shall neuer haue a good baily, that is not able him selfe to iudge skilfully of him: nor let him euer think to haue his worke well doon, that knoweth not how, nor which way things ought to bee doon, but must be faine to learne of his man: for there is none can iudge of a worke, but a workman. Therefore in the choyse of a Bayliffe, I would haue fower things chiefely considered: that he be louing, diligent, meete to rule, and trustie, and if you will adde a fift, I am well contented, that is, that hee bee not giuen to drunkennesse: for a drunkenman looseth with his memorie the regard of his duetie. I doo not inquire whether hee haue been brought vp ciuilly or deintely, but I would haue him a hard fellowe, brought vp from his childhood to labour, and one that were throughly well skilled, of a meane age, that he bee not vnwilling to worke for youth, nor vnable to trauaile for age. I would haue him haue some skill in carpentrie, that if there happened to be any thing broken about his stables, his Carts, or any other his instruments, he might speedily mende them, and that hee could mend Wals and Hedges. I would haue him also not What things ought to be in a Bayliffe of husbandry.

vnskilfull

vnskilfull in the diseases of cattel: such a one as hath been brought vp with skilfull husbands, will proove meetest to haue charge. For there be a great number, that though they be skilfull ynough in their profession, yet haue they not gouernement in them: but either vsing too much sharpenesse, or too much gentlenesse towards such as be vnder them, do hinder the profite of their maister: and therefore I would haue a Bayliffe well tried before he be taken: neither is it onely to be sought, whether he be skilfull in this craft, but whether he be trustie and louing to his maister, without which, he is not worth a rush, though his skill be neuer so great. And chiefely he must be skilfull in this, to know what worke is meetest for euery man: for some workes require strength more then skill, and others, otherwise. And therefore in appointing of these, he ought to haue great iudgement and good discretion, which he cannot haue, except he haue good skill. Therefore a Bayliffe is as wel to be taught, as a Smith, or a Carpenter: and the knowledge of husbandry is greater and of more difficultie. Wherefore I merualle, that in this so necessarie an occupation, there are found so few masters and prentices.

RIGO. Perhaps the tediousnesse and hardnesse thereof driueth them away.

CONO. Why haue not Orators been likewise driuen away, for hitherto as *Cicero* saith, ther hath ben no perfect Orator found.

RIGO. Of whom would you haue your Bayliffe to be taught?

CONO. Your question is good, I will shew you, though verie few haue taught what belongeth to a husband in all things, neither shall you find many skilfull in euery point. Therefore he that shall be a bayliffe, must be taught by degrees, he must first begin when he is a childe, with keeping of Sheepe or Swine, and when he is elder, with droues of Cattell, and keeping of Horse: he must learne next to digge, to thresh, to set, to sowe, to hedge, to build, to mend such things as are broken, to play the butcher, to giue drincks and medicines to sick cattell, & such other like things. And thus must he proceed from one to an other, till hauing passed them all, he come to be a maister, euen as *Gregorie Nazianzen* teacheth of a Bishop, and as *Tullie* would haue a Generall, after he hath borne all other offices of the field.

The trayning of a Bayliffe.

RIGO.

RIGO. You shew me wonderfull Philosophie.

CONO. As I said at the first, his best age is betwixt thirtie and and threescore: for the flames of lustie youth beginning to abate he will not be so hot in his wooing: for while he followes that game, he will haue no mind but of his minion, neither shall any reward be so welcome vnto him, as the fruit of his fancie, nor any greefe so great to him, as ỳ failing of his desire. If he once passe threescore he wareth slothfull and vnable to labour. For I had rather haue the worke of a paineful and diligent Bailife, then the seruice of a great number of slouthfull lobbers: as he that had rather haue a Lion captaine ouer Harts, then a Hart captaine ouer Lions. This must chiefely be looked vnto (since early going to worke is a great matter) that the Bailife be a good riser, and that, supplying his maisters place, hee may be the first vp in the morning, and the last that goeth to bedde, and that he see the doores fast locked, and euery man in bedde, that the cattell haue meate ynough, and be wel littured, that he set forward, according to the time of the yeere, such as doe loiter in their labour, that he himselfe go lustily before, that he suffer no man after it is day to lagge behinde, but that they follow the Bailife lustily with a courage, as if he were their Captaine in a skirmish: and that he vse sundry deuises to cheere them vp in their labour, sometime as it were to helpe him that fainteth, to take his toole out of his hand, and labour lustily before him. And as a carefull shepeheard early craying out his sheepe, and bringing them home late, looketh that he leaue none of his flocke behind him: so likewise ought a good Bailife to carry out his men, and to haue good regard ouer them. If any of them happen to be hurt or sicke, let him looke to the dressing of them, and if they be very sicke, to carry them to the sicke folkes lodging, and to see that they be well ordered: and to that vse haue I built ponder house that you see, remoued from the other buildinges, that the sicke may be had thither and looked vnto, specially if their diseases to bee contagious, least other should be infected. It is the Maisters duetie to haue such regarde of the health of his seruaunts, and to haue such care of them, that their sicknesse may bee preuented by good medicines and good looking too: as to see that their meate and drinke be wholsome and good, and giuen in due season: beside, that the bayliffe eate his meate with them,

and

and not by himselfe, whereby it shall be the better ordered. And because Phisitians are not alwaies at hand inthe countrey, it behoueth to vse such remedies as experience hath taught, & such as haue holpen others of like diseases. Those that labour in the Sunne (because the sunne hurteth the body and the vaines) their diet must bee the thinner, that they make not too great meales, but eate little and often: this order keepeth them in health, & helpeth digestion. Some do vse to giue Wormewood Wine, or pottage made of Wormewood. It is very necessary for them sometimes to recreate themselues, so that in the meane while they giue not them selues to noughtinesse. There must be heede taken, that they drinke not when they be hot, nor lye vpon the cold ground: if their water be not good, it must be well purified. It is very good also to let them drinke barley water. We must remember that seruants be men: besides, such good looking to, wil breede a greater goood will and duetie, and lightly they will serue the faithfuller and better when they haue their health, which haue had good cherishing in their sicknes: and besides (which is not well obserued in greater gouernors) the Bailiffe must beware that he deale not too cruelly, nor too gently with them, that he alwaies make much of those that be diligent and painefull, that he be not too hastie with the worser sort, that they may rather reuerence him for his seuertie, then hate him for his crueltie, which he shall easely bring to passe, if he rather beware that they offend not, then after their offence too late to punish them. For there is none so good a bridle for an euill disposed person, as to let him alwaies be occupied. So that *Catoes* saying herein is most true, that men in dooing nothing, learne to doe euill. Let them haue their allowance and their meate in due season, let them alwaies feede together in one place, and the Bailiffe with them, that he may be an example to them of all thriftinesse. If he finde any of them to haue laboured painefully and truely, let him giue them a good countenance, and encourage them with rewardes, to make them the willinger to doo their duety: beside, let him looke that they be rather well clothed, then curiously apparelled, that their garments may keepe them from the cold and the raigne: let their wages be well payed them that the want thereof be no excuse for them to loyter in their labor. And as meat and apparel is necessary for them, so likewise is

correction.

correction. For the wise man saith, giue a horse the whip, an Asse the snaffell, and a foole the rod. And againe, hee that deales to gently with his seruants, shall make them in the end stubborne & froward. Aboue all things let him see that they feare God, let him in no wise suffer them to sweare or to blaspheme, nor to vse filthy or vngodly speech: but let him prouide that they be instructed in the Catechisme, that they vse prayer, that they go to Sermons vpon the holy daies, and receaue the Sacraments at times appointed, that they be not hunters of Alehouses or euill cõpany. For as the Poet saith it is lawfull to be well occupied, euen on the Festiuall daies. When they haue serued God, & dined, let them walke abroad in the grouñd, let them looke there be no cattell in the Corne, and stop such gappes as they find open, and looke that their cattell be in safetie abroad. To be short, the Bayliffe must in all these matters be as it were a Bishop, or a Master of the workes, so shall euery man the better doo the worke that belongeth vnto him. The Bayliffe must neuer be from their heeles, least in his absence they fall to loytering, neither must he suffer them any time to be idle: he him selfe must not be giuen to drinking or gaming, nor to hunting or fishing, except for his masters profite: let him very seldome entertaine any gestes, except they be of his masters retinew: let him not bestow his masters money, about his owne marchandize, for such kinde of bargaining makes him the slacker in his duetie, and maketh his accompts seldome fall out iust. Aboue all things this is to be wished in the Bailiffe, that he doo not thinke him selfe wiser then his master, or suppose him selfe to haue more skill then he hath, and that hee alwaies seeke to learne such things as he is ignorant of. For as it is very profitable to do any thing skilfully, so is it more hurtfull to do it vntowardly. *Columella* had rather haue a Bailiffe that could neither read nor write, so that his memory be good: for such a Bailiffe (saith he) will oftner bring his master mony, then a booke: because (not able to write) he can not so easily frame a false account. The Bayliffes wife must alwaies be with him, that she may keepe him from running at rouers, and may helpe him in his labours: hir age must be such also, as we required in the Bayliffe before, she must be painfull, healthy, carefull, and honest, shee must not be too ill fauoured, least she be loothsome vnto him, nor to beautifull, least he doate too much

The Bailiffes wife.

much vpon hir, and keepe home when he should be abroad. Shee must in the meane time looke to the kitchin, and to other worke at home, gouerne the maides, and keepe them at their worke, looke to their necessaries, and giue them their allowance.

RIGO. You seeme to me heere, to make the Bailiffe a master, and the maister a Bailiffe.

CONO. This age of ours, quite corrupted with delicacie and deintinesse, litle regardeth the honest & profitable orders of our forefathers: for in those daies the masters themselues plaid the husbãds, and thought it not to go well with that master that must be taught by his Bailiffe, as *Cato* witnesseth, and *Varro* also complaineth, that the husbands in his daies had forsaken the plow and the Sithe, and gotten themselues within the walles, and spent their time rather in Maygames and Midsommer sights, then with tilling the ground, or planting of Vines. Therfore *Cato* and the old writers do attribute many things to the Master, that we assigne to the Bailife. And I, though I seeme to put the charge of the household in the hands of my Bailiffe, yet will I my selfe be ouerseer, and haue euery thing done as I apoint, entreating gently (as I taught the Bailife afore (both the Bailiffe and my labourers, regarding more their labour then my gaines. But I carry you about too long, being fasting, I pray you let vs go to dinner: you shall not dine at the Court to day, neither meant I to shew you, as you see, the pallaice of *Lucullus*, but the poore cottage of *Cincinatus*, *Abdolominus*, or *Laertes*. Heere you see the roomes for my husbandmen, seuered from mine owne house, but yet so, as I may easily see whatsoeuer they do. Heere I and my wife with our household seruants do lie.

RIGO. All very excellently well as may be, there is nothing wanting that is to be wished for. Mistresse *METELLA*, you trouble your selfe to much, like *Martha*, about the prouiding of your dinner.

METELLA. Not a whit sir, you must bee contented with Coutry fare, you shall neither haue redde Deere, Marchpaine, nor Sturgian, nor any Courtiers fare: but an Egge, and a Sallet, a pullet, or a peece of Lambe.

RIGO. This diet contenteth me aboue all other.

CONO. Fal to it then, & tel me how you like our coutry wine.

RIGO.

RIGO. Surely it passeth either wine of Orleans, or Anjow. I did not thinke to haue found so good a cup of wine in these quarters.

CONO. The husbandry, & good season of the yeere doth yeeld the same.

RIGO. Well, we sit too long at dinner. The weather being so faire and so pleasant abroad, it is a shame to sit any longer, but to walke out and looke vpon your ground.

CONO. The weather being faire, you bring a horse to the Field (as they say) when you speake to me of going abroad: for I my selfe, if the weather or businesse do not let me, am euery day, according to *Catoes* counsel, abroad in my ground: and if it please you, I will carry you abroad and shew you my ground. You must not looke to see the great countries of *Metellus* or *Lucullus*, but the possessions of a poore country man, that contented with his state, would be as he is, & would not change liues with the Emperour.

RIGO. I pray you let me heare your opinion of the field and the tilture thereof: for I see you are a perfect husband, and nothing vnskilfull. I haue a great desire to heare some rules, and such as serue our turne best. Of the tilling & husbanding of the ground.

CONO. If it be a shame for an apprentise at the law, and a pleader of causes to be ignorant of the lawe wherein he dealeth, a greater shame is it for a professor of husbandry, to be vnskilfull in the ground whereon his whole trade lieth. How is he able to iudge vprightly in husbandry, that knoweth not which way to til his land: The professors of all other artes, do commonly keepe to themselues, such things as be the chiefe mysteries of their knowledge. Contrariwise, the husband reioyceth to haue euery body made priuy to his skill, & being demanded in what sort he doth this and that, he gladly declareth his whole dealing in euery point: such good natured men doth this knowledge make. I haue ordred my ground here, according to the diligence of the old fathers, rather then for the wantonnes of these times. Therfore I will first shew you their opinions, and afterwards mine owne fancie. First, *Cato* appointed nine degrees of the land in Italie. The first, the Vineyard, that yeeldeth much and good wine: the next well watered Garden: the third, the Willow Groue: the fourth, the Oliue trees: the fift, for Meddow: The good nature of the husbandman.

The degrees and sorts of ground.

the

the sixth, Corne ground: the seauenth for Copie ground: the eight, for Timber trees: the last for Wast. But these degrees as *Varro* saith, are not generally alowed of, neither haue we the vse of them al in these countries: but make most account of such land, as serueth for Garden or Orchard ground, Corne, or Fishponds. Of Corne ground I will first entreate, and afterwards of Pasture, Medow, Wood land, and willow Groues.

Of corne ground.

RIGO. I pray you then take the paines to shew the nature of it, and which way the best ground my be knowen.

CONO. *Cato* counteth that the best ground, that lieth at the foote of a mountaine, being leuell and lying toward the Sunne, as the whole country of Italie lieth. In cold and Northerly coūtries, it is good to haue the land lying East and South, least these two quarters, being bard off by any hill, the land be frozen with cold: but in hote countries it is better to haue the ground ly North, both for pleasure and health.

RIGO. They say it is needfull to know the conditions of euery ground.

CONO. It is so, and sooner shall you do it, then the conditions of a man: for being well tilled, it wil not deceiue you, but deale iustly with you. To know the nature of euery ground, *Iscomachus* in *Xenophon*, doth will you to marke well the plants and the yeeld of the Country, except you will loose your labour or fight with God. *Varro* counsels you to looke whether there be in the land either Stone, Parble, Sande, Grauell, Raddell, Chalke, Clay, Pebble, or Carbuncle, that is ground ouer heated and parched with the sunne, which will burne the rootes of what soeuer commeth in it. Also if it be wette or weeping ground, or subiect vnto other inconueniences, and such ground also, according to the nature of the soile, is good or euill. In some Countries stonie ground is altogether barren, specially for Corne rnd Fruit. In other places againe, they vse stones in the mannring and bettering of their land, as in certaine places of Arden is to be seene. *Theophrastus* writeth, that the *Corinths* did cast away all the stones out of the fields of *Sarragosa*, and there by made the ground the worse, when, the stones being away and the country hot, there was no succour left to defend the ground from the extreame heate of the sunne. In other places in stonie & hilly grounds

How to know the goodnesse of the ground.

Otes

Otes do prosper well. In like sort, in all Countries we must regard the layre of the Countrie, and the nature of the seed that we sowe: for Grauell in some places is cast vpon the grouud in stead of doong, and some things prosper best in grauelly grounds. In Barbarie (as *Columella* doth witnesse) the very rotten sandes exceed any other ground in fruitfulnesse. It is also something to the purpose, whether the grauell be white, redde, or yellow: besides, some ground doth deceiue both with colour and qualitie. In some Countries the blacke mould is onely esteemed: in others, the fat redde mould is thought best. In England, the chalkie ground beareth good corne, and pastures very well. In some places the thicke and the clammie ground is most fruitfull. In all these it is to be learned, what is best for the hill ground, what for the vally, what for the tilled, what for the lay ground, what the moist seggie ground requires, and what the dry and barren. Also in planting, what ground is best for Vines, what for other trees, what delights in drie ground, what in moist ground. *Virgil* commendeth a mellow ground that is fat, and will soone be resolued, for such ground is tilled with smallest charge and labour: the next that which is fat and stiffe, which greatly recompenceth the husband his trauaile and charges: the worst, is that which is dry, leane and stiffe: for both it is tilled with great labour. and beside, neither answereth in his crope the husbands trauaile, neither serueth it for good meddow or pasture any time after, and therefore such ground is not to be medled withall. Also, the goodnesse of the ground is easily perceaued by perfect tokens: for a clod sprinckled with a litle water, if in working with the hand it bee clammy, and cleuing, and sticketh to the fingers like pitch, when it is handled as the Poet saith, and breaketh not in falling to the ground, this sheweth a naturall fatnesse and richnesse to be in it: besides, you may know the mould that is good for corne, if it beare Bulrushes, Thistles, Threeleaued grasse, Danwort, Brambles, Blackethorne, and such like, as neuer grow but in good ground: as on the other side, lothsome and ilfauoured weedes, declare a leane & a bitter ground: Ferne, and withered plantes, a cold ground: sadde and heauie coloured, a moist and a wet ground: a raddel and a stony ground, is discerned by the eye, a stiffe and tough clay, by the labour and toile of the oxen. A good token is it also of good ground,

Signes of the goodnesse of the ground.

where the Crowes and the Pies follow in great nũber the Plow, scraping in the steppes of the Plowman. The goodnesse is likewise knowen, if at the Sunne setting, after a Rainebow, and in a shewre of raine folowing a great drouth, it yeeldeth a pleasant sauour: also in tast it will appeare, if tasting a clod that hath bene watred in an earthen vessell, you find it sweete, it is a signe of rich ground, if bitter, a great token of barren ground, if it be saltish, it is to be shunned, and not to be vsed vpon the dounghill. You must remember also, that ground will some times change, and of fruitful become barren, which hath bene seene, as *Plinie* reporteth, in the old time in *Thessalie*, and in our time, in sundry places of our countrey. Beside, one kind of ground, though it bee neuer fertill, will not beare all things, as the poet wisely noteth. *Ne ſerues one groũd for euery crop.* Moreouer, the disposition of the Heauens is a great matter, all Countries haue not the weather and ayre alike: wherefore it is the part of a good husband to know the nature and propertie of his ground, and to marke the dispositiõ of it for euery part of the yeere: he must also consider what crop is best for euery layer. Some groũd serueth for Corne, some for Vines, some for Oliues, some for Medow, some for Pasture, neither may all things well be sowen in rich ground, nor nothing in barren ground. Such things as need not much moisture, are best sowen in light ground, as the great Caluer, Sperie, Chich, and the other pulses that are pulled and not cut. Those that require more sustenance, are sowne in richer ground, as Potte hearbs, Wheate, Rie, Barley, Linseed. Some of them doo good to the ground the yeere folowing, as Lupines that are vsed to be sowen for the bettering of the ground. There is difference also to be put betwixt fruits for pleasure, and such as be for profite: as fruit trees and flowers, and such things as yeeld both pleasure and sustenance, and are also profitable to the ground. You must choose for Willowes, Osyers, and Reedes, a wet and a marrish ground, and contrary where you will haue corne and pulse, that delights in drie ground, sperage and such like, must be sowen in shadowy places, and other ground for Quicksets, Timber, Mast, and fewel: yea such ground as is very grauely and barren, hath his vse, where you may plant birch and such like, and watry grounds where you may set Alders, Broome, and Bulrushes.

Ground will change.

The disposition of the heauens to be obserued.

RIGO. Surely the temperature of the ayre, doth very much in the fruitefulneſſe of the ground, for I haue oftentimes marked, that one kind of ground is more fruitefull in one countrey, then in an other.

CONO. In *Venefri*, the grauell ground beares Oliues beſt, where as about *Granado*, they require the richeſt ground that may be. When in other places the Vine doth not proſper very well in ſtony grounds, about the Rhine the very ragged rockes do yeeld as fruitefull Vines as may bee ſeene. *Plinie* doth witneſſe, that in ſome places the Vines do grow euen in the Fennes and Marſhes, ſuch a ſecret force is there in nature. About *Chalcia*, an Iland about the Rodes, it is ſaid there is a peece of ground ſo fruitfull, that they mow their barley being ſowed in his ſeaſon, and their Croppe, ſowe it againe, and gather it with their other graine. The *Albanoyſes* receiue the fruit of their land ἄσπορα καὶ ἀνήροτα, vntilled and vnſowen, and being once ſowen, it yeeldeth his crop three yeeres together. *Homer* calleth *Phrigea* ἑκατόμπολιν, and *Argos* πολύπυρον. *Herodotus* writeth, that Babilon is ſo fruitfull, as the ground yeeldeth increaſe two hundred and three hundred fold. *Plinie* affirmeth, the increaſe in his time to be fiftie, and to good husbands an hundred fold. About *Monte Gibello*, it is reported by credible perſons, to be an hundred folde. *Italie* is ſo fruitfull, that *Varro* calleth it the garden of the world, becauſe it is ſo fertill and well planted in euery place: *Campania*, being full of Corne: *Apulia*, plentious with wine: and *Venafri*, abounding with Oyle.

Italie, the garden of the world.

RIGO. I haue hard ſay, that Germany and France haue not bene in times paſt very fertill, and that they haue bene altogether without Vines, & now we ſee no country more fruitfull, that yeeldeth greater abundance of all things. Where can you finde better wines, then about Bauaer and the Rhine? I ſpeake not of their great ſtore of graine, Mines of gold, ſiluer, iron, and lead. In the countrie of *Thurin* in Germany, it is ſaid, that after wheate once ſowen, the ground will yeeld Rie of it ſelfe two yeeres together.

The fruitfulnes of Germanie.

CONO. Yea, and in our country here, wee haue ground that will beare Wheate euery yeere. Rape ſeed being once ſowen with vs, doth oftentimes yeeld his Crop two yeeres together, without ſowing or labouring.

RIGO. Under the Northeren pole it is reported the ground is so fertill, as they sowe in the Morning, and reape at Noone. In *Barbarie*, where the ground is low they plant vnder the date tree the Oliue, vnder the Oliue the Fig tree, vnder the Figge the Pomegranete, vnder it the Vine, vnder the Vine they sow Wheate, and vnder wheate Pulse, all prospering one vnder the others shadow, & yeelding their fruit the same yeere.

The fruitfulnes of Barbary

CONO. That made me to say, that the ground followes the disposition of the heauens.

RIGO. But sith in all places the ground is not of like goodnesse, what if we chance vpon a leane & a barren ground, as heathy, bryshy, and grauelly ground: may these be made fruitful and mended by art?

CONO. Very well, there is no countrey that the most gratious Lord hath left without sufficient yeeld, if labour and trauell be not refused.

RIGO. That skill I would gladly vnderstand.

Of donging of ground.

CONO. It is brought to passe diuers waies, principally by doonging and diligent labour: and to this end serue those heaps of doong that I lately shewed you.

RIGO. I pray you let me know what doong doth most enrich the ground.

CONO. *Varro* and *Columella* his followers, appoint three sorts of doongs: the first of Poultrie, the next of men, the third of Cattell. Of the first sort, the best is that which is had out of Douehouses, the next is of Pullme, and al other foule, except Geese & Ducks, which is hurtfull. The people in the old age had such store of Poultrie & foule, as the doong of them suffised for the manuring of their ground. The next to this, is mans ordure, if it be mired with other rubbish of the houle: for of it selfe it is too hote, and burnes the ground. Mans vrine being fiue moneths kept, and powred vpon the rootes of Apple trees & Vines, bringeth great fruitfulnesse to the trees, and giueth a pleasant taste to the fruit. In the third place is the doong of Cattell, whereof the best is the doong of Asses, because this beast doth chaw with most leasure, whereby his meate beyng well digested is made the profitabler doong. Next to this, is the doong of Sheepe, next of Gotes, then of Oxen, and Horses: the

The sorts of doong.

Vrine.

worst

worſt of all of Swine, very hurtfull to Corne, but vſed in ſome places for Gardens, for lacke of other doong, but is a great breeder of noyſome weedes: yet *Plinie* ſeemeth to allow it, as the filth of a filthie creature. The doong of Horſes likewiſe, where the Horſes are fedde with Barly, doth breede great ſtore of weedes. The Lupine before he beare his codde, is moſt commended, beyng turned vp with the Plowe or Mattocke, and layd in bundels about the rootes of trees or Vines. Where they haue no ſtore of Cattell, they vſe to mend their ground with ſtraw and Ferne, and with the ſtalks of Lupines, and the branches layd together in ſome Ditch: hereunto you may caſt Aſhes, the filth of Sinkes and Priuies, and ſtrawe, with duſt and other thinges raked together: but in the middeſt, you muſt lay ſome ſound matter againſt the breeding of Adders and Snakes: alſo Humlockes, Walwort, and the weedes growing about willow Trees and Ferne, with other ſuch rotten weedes you may gather and lay vnder your Sheepe. They that dwell in Grauelly and Heathy grounds, doo take the Turues of the Earth and the Heath, and laying them in heaps powdred with a little doong, ſuffer them to lie and rotte, and after lay it vpon barren ground, but ſpecially where they keepe great ſtore of Sheepe, they caſt into their folds ſuch Turues pared from the ground. *Columella* counts them but euill huſbandes, that haue of euery one of the leſſer kind of cattell leſſe then a cart lode of doong in 300. dayes, and each of the greater ſort tenne loade, beſide the filth and durt of the yard. This is alſo to be noted, that the doung that hath line a yeere is beſt for Corne, for it both is of ſufficient ſtrength, and breedeth leſſe weedes, but vpon Meddow and Paſture, you muſt lay the neweſt, becauſe it bringes moſt graſſe, and this muſt bee done in Februarie, the Moone encreaſing, for this is the beſt time to cauſe encreaſe of graſſe. In the manuring of your ground, looke that you lay moſt doung vpon the top of the Hill, for the raine will beare it to the lower partes faſt enough. Hee that mindes to haue his ground beare Corne, if hee meane to ſowe in the end of Sommer, muſt turne in his doung in September: if in the ſpring, hee may lay it on at any time all the winter. What time ſo euer it bee done, you muſt looke that the wind be Weſterly, and the Moone in the wayne. This obſeruation helpeth greatly to the bettering of

Old doung beſt for Corne & new doung for Meddow.

The obſeruing of the winde & the Moone, in mending of

the ground. Wet doung hurts the field.

the ground. Beside, you must not forget to let the doung be dzie before it be laid vpon the ground. For though *Columella* do bid the contrary, our owne experience willes vs not to follow him: for doung while it is moist, doth more harme to the ground then good, as daily experience teacheth. Now as your land will ware cold, if it bee not dounged, so will it be dzied or burnt, if it be manured yeerely, or to much. The watrie ground requireth more store of doung, and the dzy ground the lesse.

RIGO. I remember I haue yet this seene Earth taken out of the fieldes neere adioyning, and layd vpon the land, I therefore gesse the earth may be mended with earth.

CONO. The Germanes, besides sundzy other sortes of enriching of their grounds, doe in steed of doung cast vpon it a kind of pith and fatnesse of the earth: (*Plinie* counts it to bee first deuised in England and Fraunce) called *Marga* as it were the fatte of the earth: but I rather thinke it to be the inuention of ehe Germans, with whom yet both the name and the vse is retayned: it is gotten in the deepe pittes, but not alike in all soyles. That part of Fraūce that lies vpon the Maase, doth shew a sandie kinde of Marle, differing from the fatte Marle of Germanie, but of the same qualitie: which caried vpon the Sea in vessels, is sold as a great marchandize. In some places the skowzing of Ponds and Ditches is vsed, to the great enriching of the ground, in the mountaine and barren grounds. In some Countries they make their land very fruitefull with laying on of Chalke, as *Plinie* testifieth of the Burgundians, and the Galkoynes. And in Germanie in our daies, this maner of mending of groūd is common. But long vse of it, in the end bzings the ground to be starke nought, whereby the common people haue a speach, that ground enriched with Chalke, makes a rich father, and a beggerly sonne. A little lower, not farre from the Maase, in the Countrey of *Lyege*, they mend their land with a kind of slate stone, which cast vpon the ground doth moulder away, and makes the ground fatter. In Lombardie they like so well the vse of ashes, as they esteeme it farre aboue any doung, thinking doung not meete to be vsed for the vnhollsomnes thereof. *Columella* writeth, that his Uncle was woont to mend sandie & grauely grounds with Chalke, and chalkie and hard grounds with graueli and sande, whereby he had

Marle, a fat kind of earth vsed commōly at this day in diuers parts of Sussex & Kent, for the enriching of land.

Chalk vsed for mending of ground.

Danging with ashes.

had alwaies goodly corne. So do I thinke, that Riuer land by ouerflowings, and fast ground with mudde mingled with sande and grauell, will be made much better.

RIGO. You haue caught mee sundry waies of mending of ground, I would gladly now learne the right way of plowing and sowing.

CONO. In plowing and orderly preparing ground for seede, consistes the chiefest point of husbandry. *Cato* affirmeth the first point of husbandry, to be to prepare to the ground well, the second, to plow it well, and the third, to doung it well. Of plowing, & turning vp the ground, the fashion is diuers, according to the nature of euery soyle and countrey. All great fields are tilled with the Plow and Share, the lesser with the Spade. The Plowes are of sundry fashions, according to the diuersitie of Countries, some single, some double, some with wheeles some without. The partes of the Plow, are the taile, the Shelfe, the Beame, the Foote, the Coulter, the Share, the Wheeles, & the staffe. The Share, is that which first cuttes the way for the Coulter, that afterwards turnes vp the Forow. Where the ground is light, they vse onely a small share. In Liffland they haue for their Plow nothing but a Forke. In *Syria*, where they can not go very deepe, they vse (as *Theophrastus* writes) very little Plowes. *Plinie* writeth, that wheeles for Plowes were deuised by the Frenchmen, and called *Plugrat*, a Germaine name, which corruptly is printed *Planarati*. In diuers places where the groūd is stiffe, they haue a litle winge on the right side of the Coulter, which winge is to bee remoued to which side you list: with the Rod or staffe, well pointed, the Plowman maketh cleane his coulter. When you worke, your Oxen must bee yoked euen together, that they may draw more handsomly with heads at libertie, and lesse hurt to their neckes. This kind of yoking is better liked of many, then to be yoked by the hornes: for the Cattell shalbe able to draw better with the necke and the brest, then they shall with their heads: and this way they put to the force of their whole bodies, whereas the other way (being restrained by the yoke on their heads) they are so greeued, as they scarsely race the vpper part of the earth. Where horses may be vsed, their vse is more commodious for the Plow, and the fewer of them the better: for many horses

The maner of plowing.

The parts of the plow.

This drawing with the head, is vsed in the vpper parts of Fraunce and Spaint.

drawe to hastily, and make too large Furrowes, which is not good: whereby wee see the ground to be excellently well plowed in Gelderland and about Coleyne, where they plowe alwaies with two Horses, going very softly. In Fraunce and other places, where they plow with Oxen, they make their Furrowes rather deepe then broad. Where the ground is stiffe, the coulter must be the greater and the stronger, that it may goe the deeper: for if the crust of the earth be turned up very broad it remaineth still hole, where by neyther the weedes are killed, nor the ground can be well harrowed. The Furrow ought not to exceed one hundred and twentie foote in length, for if it doo, as *Columella* saith, it is hurtfull to the beasts, because they are too much wearied withall: but this rule, where the fields are large, is not in many places regraded, as in the countrey of Gulicke, where the fieldes are great, their Furrowes are drawne very long. You must not plowe in wette weather, nor wette ground, nor when after a long drought a little raine falling, hath but wette the vtter part, and not gone deepe. If it be too wet when it is plowed, it doth no good that yeere. You must therefore haue a regard to the temperature of your season, that it be neither to dry nor to wet: for, too much moisture maketh it to durtie, and too great drynesse maketh that it will neuer worke well: for either the hardnesse of the Earth resisteth the Plow, or if it do enter, it breaks it not small enough, but turneth vp great stakes, hurtful to the next plowing. For though the land be as rich as may be, yet if you go any deapth, you shal haue it barren, which is turned vp in these great clodes, whereby it happeneth that the bad mould, mixed with the good peruerteth the weopter Crop.

The like is vsed with vs in Norfolk, & Linconshire.

Dead mould.

Where you haue plowed in a dry season, it is good to haue some moisture in your second stirring, which moistning the ground, shall make your labour the lighter. Where the ground is rich, and hath long borne water, it is to be stirred againe when the weather waxeth warme, and when the weedes are full growen, and haue their seedes in their toppe, which being plowed so thicke, as you can scarse see where the Coulter hath gone, vtterly killeth and destroyeth the weedes: besides, through many stirrings, your fallow is brought to so fine a mould, as it shal need very litle or no harrowing at all whē you sow it: for the old Romans, as *Columella* witnesseth,

would

would say that the ground was ill husbanded, that after sowing had need of the Harrow. Moreouer, the good husband must trie whether it be well plowed or no, & not onely trust your eyes, which (the balks being couered with mould) may easily be deceiued, but trie it with your hand, (which is a certeiner proofe) by thrusting downe a rod into the Furrow, which if it pearce a like in euery place, it sheweth that the ground is well plowed. If it be shallowe in one place, and deepe in an other, it declares the ground to be euill handled in the plowing. If you are to plow vpon a hill, you must plow ouerthwart, and not vp and downe: for thereby the inconuenience of the steepenesse is met with, and the labour of both man and Cattell is lightned: But heerin you must beware, that you plow not alwaies one way, but sometime higher, sometime lower, working a slope, as you shall see cause. Touching the season of your plowing, it must be chiefly in the spring, as the Poet well teacheth: *When as the pleasant spring, &c.* For in Sommer the ground is too hard and churlish, and in Winter too fowle and dirtie: but in the Spring the ground being melow, is easily to be wrought, and the weedes are then best turned in, which both do good for the enriching of the ground, and plucked vp by the rootes before they haue seeded, will neuer spring aagaine. And therefore with vs, we vse to begin to plow about the middest of March: but in sandie and light ground, they vse to plow in the middest of winter, if the season will suffer, *Plinie* is of opinion, that stiffe ground also should then be stirred. A slender and leuell ground, subiect to water, would be first plowed in the end of August, and stirred againe in September, and prepared for sowing about the twelfth of March. The light hilly ground, is not to bee broken vp in Sommer, but about the Kalends of September: for if it be broken vp afore, being barren and without iuice, it is burnt vp with the Sunne, and hath no goodnesse remaining in it. Wet ground, some would haue broken vp after the Ides of Aprill, which being plowed at that time, should be stirred againe about the tenth of June, and after againe, about the Kalends of September, according to *Columellaes* mind. But those that are skilfull in husbandry agree, that after the tenth of June, without great store of raine, you shall not plow: for if the yeere be wet, there is nothing to the contrarie but you

Triall of good plowing.

The plowing of a hill.

The best time of plowing.

may plow in July. In the meane time, beware that you deale not with ground ouerwet, as I gaue you warning before.

RIGO. May I plow in the night, if I list?

Plowing in the night.

CONO. Yea, very well, in sommer time and in hoat countries you may begin in the euening, and continue till the sunne rise, that the moisture and fatnesse of the ground, may remaine shadowed vnder the Clod: and that the cattell through ouermuch heate of the sunne, be not diseased nor hurt. How oft you shall plow the ground that you meane to sow, partly the nature of the soile, and partly the condition of his seed will teach you, as when we come to it, I will tell you: for it is not needful to stir a grauelly and a light ground, so often as the stiffe ground: yet we finde that land, the oftner it is stirred, the better it beares. So that for some seed, you must not onely twyfallow and threefallow your ground, but also fourefallow it, as they vse in the fruitfullest places of Italy and Germanie. In *Misnia* and *Austria* they plow but twise. Stiffe ground, as they commonly doo in Italy, is best to be sowed vpon the fift stirring, in *Tuscan*, vpon the ninth. Thus hath euery Countrie both in this, and other matters, his fashion, according to the nature of the ground.

RIGO. But may I not sowe one peece of ground euery peere without resting?

CONO. There are some grounds you may sowe peerely, as in Italy, & in Austria, & likewise in some parts heere about the Riuer, that are fruitfull either by nature, or by ouerflowing. In other places you must obserue the old saying of the husband, Take not too much of your ground. *Virgill* would haue ground rest euery other peere: which if you haue store of ground, out of all doubt is best. Heerof had the ground, that is sowed euery peer, his name in the old time: but commonly euen the best ground requireth rest the third, the fourth, or (at the farthest) the fift peere. *Varro* writeth, that in *Olynthia* the land beareth euery peer, & euery third peer most plentifully. But if you will do well, you must let it lye euery other peer, according to the nature of the soile, or else sowe it with lighter seed, that soketh out lesse the substance of the ground, as Lupines and others, that we wil shortly intreat of. It is also much to be considered, whether the ground that you plow be lay ground yeerly sowen,

or

or fallow: If you breake vp new ground, if it be rich, beaule, and prepared for seede, it sufficeth to plow it once, and to sow it immediatly, and harrow it. If it be light & grauelly ground, you must thy-fallow it specially at the first breaking vp.

RIGO. Here you speake of diuers tearmes belonging to this trade, I pray you make me vnderstand them, before you proceede any farther. Diuers Latin words belong to husbandry, interpreted.

CONO. This art (as likewise al other) hath certaine wordes peculiar & belonging to it selfe: & because sundry men of good learning haue herein bin deceiued, least my matter should bee marred with darke & strange tearmes, I wil declare the words as plaine as I can, digressing a while from my former speech.

RIGO. I beseech you hartily.

CONO. We take *Agrum*, a Feeld in our speech, not for a iurisdiction, a Diocesse, or a shire, as the old Lawiers take it, but with *Iabolenus* and *Florentinus*, we count it a parcel of grou̇nd either earable or pasture. *Ager, Aruus*, or *Aruum*, wee call earable ground that is to bee Plowed and Sowen. *Varro* would rather haue it called *Aratum*, and not *Satum*. The Feeld that is called *Restibilis*, is that which is renewed and euery yeere sowne, called of the Greekes ἀναλήσιμος, because his fruitfulnesse continueth to the next yeere, and yeeldeth his croppe euery yere. *Ager Noualis*, is called of *Varro*, the ground that hath been sowen and fallowed: of *Plinie* counted to be sowen euery other yeere: with the Lawiers it is counted ground new plowed, that hath lyen a yeere: wee according to the vulgar speech (for we must speake with the most, and Iudge with the fewest) doo call *Nouale Agrum*, that which is newe broken vp, and hath not before beene plowed, whereof commeth *Noualium Decima*, the Tithes of new broken vp land, yet I know there are some learned that count it that, which after his crop lies lay. *Veruactum* is of *Varro* taken for that ground, that in the spring time is turned vp and hath been for a while spared. Oftentimes is this also called *Nouale*, both the field that hath line a yere, and that which is broken vp the first spring: for thus saith *Varro*, There is great difference whether you sow in vntilled ground, or in that which is yerely sowen, and is called *Restibilis*, or in that which hath lien a while, & is broken vp in the spring. Moreouer, both *Columella*, Agri Voca.

and

and *Plinie*, doe vse not seldome *Veruactum*, for ground now broken vp in the spring, taking their reason of the time, whereby νέον, πρόσφατον, νεωστί, may be enterpreted by the name of *Veruactum*, or *Nouale*. The field is said to be ploweed, to be stirred with the plow when it is turned vp: νειὸν, as *Hesiodus* saith, ἔλκειν νειὸν δεύτερον ἢ πρόσφατον ἢν οἱ ἀνάγκη, it is broken vp when it is first plowed lying in great cloddes. The second plowing is called *Offringere Agrum*, or *Iterare* to plowe againe, ἐπανάλωσιν, *Tertiare* to thrifallow it. *Ager iteratus*, and *tertiatus* be vsuall wordes with *Columella* and *Plinie*. *Nouare*, is to change the grounde well husbanded before, and to plow it and prepare it for the sowing. *Occare*, to harrow it, as *Varro* saith, is so to breake it, as there remaine no cold. The harrow is an instrument crosse lettused, to breake the cloddes withal, and to couer the seedes. *Cratire*, is likewise vsed in the same signification. *Atrare*, is when that which is sowen and come to some groweth, is turned in with the plow. *Plinie* calleth *Ararare*, as it were *Aratrare*, to plow often that which is sowen. *Sarrire*, is to purge with the rake. *Runcare* is to weede out of the ground noisome weedes, for which is also vsed *Auerruncare*, and *Deruncare*, and of *Columella*, *Exherbare*, *Pastinare*, and *Repastinare*, is to digg about the Vines, *Pastinum*, is a forked instrument vsed in the planting of Vines. *Lirare*, and *Occare*, are almost one, where we plow, so as we leaue betwixt two Furrowes a Ridge, for the drie keeping of the graine like a garden bedde. And hereof is the space called *Lira*, a Ridge, which the husbandman call *Porcas*, because the place being raised hie, defendeth the corne from the water, and *Lira Hortensis*, a bed in a garden. *Scamnum*, a balke, is the grosse earth that hath scaped the Plow. *Plinie* willeth, that there be no Balke made, nor great Clods remaining, meaning the great Turffe that is turned vp at the first plowing, *Scamnatus ager*, is called of *Vibius Vrbicus*, that land which runneth all in length from west to east, which if it be more of length then bredth, and lyeth vpon the North, is called *Strigatus*. The land it selfe is also called grosse and raw, that is not well mellowed, which hath neede to be seasoned with the heate of the Summer, and the cold of Winter, & to be plowed in the Spring. It is also called rich, fruitful, fertill: and that which is nought and yeelds not his fruit, is called leane, barren, hungery, or brinish, ἀλμυρὸς. Also salt, bitter: fennish, where

the

the water ſtill continewes: wet, that ſometime lies dyle: Carbunkled, that is burnt with the ſunne, rotten, and mollie. It is alſo called pleaſant ground, ſweet, blacke, rotten, and mellowed, which are the ſignes of good ground: but hereof I thinke I haue now ſpoken ſufficiently.

RIGO. That you may continue your ſpeech, I pray you go to your former matter againe.

CONO. When you haue broken vp your ground, if it be *Nouales* as I ſaid, and not tilled before, you may ſowe it preſently, and harrow it, and if need be rake it. The ground that is yeerely ſowen, and that hath lien ſpare, is to be plowed thrife, according to the nature of the ſoile, and the ſeed that you meane to ſowe.

RIGO. Now you haue told me how to order my land for ſeed, I pray you let me vnderſtād the ſorts of ſeed, and in what ſorte they muſt be ſowed.

CONO. That muſt I do. The ſeed that cōmeth of that which the Latines call *Fruges*, as Pulſe and Corne, we heere do call *Fruges*, all ſorts of harueſt graine, which the Germans call γνία ἢ ἀγγία, becauſe they are gathered in their beautie and their ripeneſſe. *Iulian* the Lawier, calleth *Fruges* all things wherewith a man is fed. The ancient writers do vnderſtand it more largely, for all the fruits of the earth. *Plinie* diuides it into two kinds, into Corne that growes on eare, as *Gallus* the Lawier defines it: the other that beareth cods as all kind of Pulſe, or Pedware. Of the firſt kind, is Wheate, Rie, Barley, Bigge, Dates, Beechwheate, or Bucke, or if you will in Greeke ὀρύζιον, Riſe, & Lenten Wheate, though all kindes growe not in all places, nor haue in euery place all one name. In ſome places you haue not Lenten wheate, chiefly where there is plenty of Big. In other places they vſe neyther Dates nor Bucke. Of the kinds of Pulſe are theſe, Beanes, Peaſon, Lētils, Chiches, Tares, Lintels, Lupines, and ſuch like. And though there be ſundry ſortes of ſeed, and euery Country hath his kind, and ſowes ſuch as beſt agrees with their nature: yet generally this is to be regarded, that you ſowe none that are old and dried, but the neweſt: for old ſeede doth oftentimes, as they write, change their nature: as the ſeede of Colworts that being ſowen, turneth to Rapes, and Rape ſeed likewiſe into Colworts. The ſeed of the firſt yeere is beſt, of two yeere old

Of ſeed, and their diuerſity.

Old ſeed not to be ſowen.

old worse, and of three, worst of all, the rest is barren and naught. The best seed also is that which is waitiest, and lieth in the bottom, and such as is full, and being broken hath a good colour: such as is wrinckled, and thin in the eare, is to be throwne away. There is also another necessary note, to haue the seed from strange ground, and from the worse to the better, and not the contrarie, nor from cold countries into hot, nor from the forward to the slow, and to beware that it be not bitten with birds, Mise or Ants: and to prosper the better, sprinkle them before they be sowen, with the iuice of Housleeke. If you mingle with your graine the seed of Bearfoot, and sow it about your ground you shal saue it frō the annoiance of birds.

The order of sowing.

You must sow your Ridges with an equall hand, [illegible], and all alike in euery place, letting your foote (specially the right foot) and your hand go together: Wheat, Rie, Barly, Otes, and other, chiefly such as beare cods, as *Milium* and *Panicum*, must be sowen with a full hand, but Rape seed onely with three fingers.

RIGO. A man must vse his hand I perceiue, as the Harper doth, to make it perfect.

CONO. He must in deed. And as wee put more water to stronger wine then we do to small, and lay the greater burden vpon the stronger man, and some stomacke requires the stronger foode, so some ground may beare much seede, and some away with lesse: neither can it be certainely appointed, how much seed is generally to be cast vpon an acre: though I know the old writers appointed a certaine quantitie to euery acre, which perhaps might serue with them: but we should fouly deceiue our selues, if we should obserue the like in euery place. First, because some ground requireth more sed then other, as the grouid is of stiffenesse or lightnesse: for the stiffer ground (as in Holland neere the Rhine) requires much seede, where lighter ground requireth lesse. The timely sowing, the thinner: and the latter, as *Columella* saith, the thicker. Secondly their measures and acres differ, as the thing that at this day is not throughly agreed vpon. But now you shall heare what seed euery ground requireth.

RIGO. That I long to heare.

CONO. After long rest, or the first dounging, eyther barley or Wheate is to be sowen: but Wheate, though it require good grouid, yet

yet if the ground be too rich where it is sowen, it will grow to ranke, and lie leadge vpon the ground. And therefore vppon such ground, it is best to sow your Wheat after a crop of Barley, Peale, or Buck, and after your Wheate crop, to sowe it with Rie: and then againe (if the ground ware not poore) with Barley. In very rich ground, immediatly after the gathering of Rape seede, plow it presently for Bucke, whereby you may haue two croppes in one yeere. In ỳ like maner Cabegged rape sowen after Rie, maketh two harueſts in one yeere. Peale, Beanes, Tares, and Fitches, and almost all Pulse els, requireth rich ground, which afterwards may yeerely serue for Wheate, *Milium*, and Rape *Plinie* would not haue Rapes sowen, but in very well dounged ground: but we finde by experience, that after a Croppe of Rie in meane ground, you shall haue the same yeere great Rapes. Sandie and Grauelly ground, must rest euery third yeere, for two or three yeeres, that beyng then well dounged, you may sowe Rie, or Buck, and after Oates. In good pasture ground newe broken vp, you may sow Oates after the first plowing, after that, Rape seed, then Barley, after that Wheate, or Rie, and at last Oates, or Rie, if the nature of the countrey be for it. When this is done, you must either doung it, or let it lie laye. If the ground be mellow, after Barley in some places they sowe *Millit*, then Radish, after that Barley, and Wheate, as in *Campania:* and such ground is sufficiently plowed, when it is sowen in some place wher Lenten Wheate is sowen, it restes three moneths, & after is sowen with beanes in the spring, in no other wise may you charge indifferent ground. If after two seasons of Corne, you sow Pulse or Pedware, the barrener ground must rest three yeeres. Some will in no case haue you sow Wheat, or barley, in ground that lies fallow. After that ye haue thus sowen your seed in ground thrise plowed and well prepared, then must you straight waies harrow it, which is done with a lettused instrument full of teeth drawen vpon the ground, whereby the clodds are broken, and the seed couered: in some places it is done with a boorde tyed to the Plowe, which they call in Latine *Lirare*. Sometime Raking is needefull, which in the Spring, looseth the earth made clunged with the cold of winter, and letteth in the fresh warmth. It is best to rake Wheate, Barley, and Beanes, twise. Moreouer, they

Harrowing.

Raking.

Rowling.

they breake a sunder with the Rouler the greater and stifter Clods. Weeding is when the Corne is knotted, the noughtie weeds being plucked vp, deliuereth the rootes of the Corne, and seuereth it. To speake of the season of Sowing, it is agreed vpon of all men, that there ought to be no sowing in winter, for the Winter corne when it is sowed before winter, appeereth aboue the ground sometimes within a seauen night after, which if it be sowed after winter is begunne, it scarsely appeereth in forty daies after. Some very fondly thinke it better to sow in the spring, then in *Autumne*. *Plinie* writeth, that in *Treuers* the Haruest being in, they haue sowed in the coldest of winter, and raking their ground in the spring, haue had an excellent good Crop after. Amongst our Haruest seedes, there are some harder that are able to abide the winter, which are sowen in hote countries, as *Virgil* saith, about the setting of the seauen stars, which *Columella* vnderstandeth to be about one and thirtie daies after the *Autumne Aequinoctiall*, that is, the 9. Kalendes of Nouember, and in Fraunce and Germanie in September, and the beginning of October, as Rape seed, Wheat, Rie, winter Barley, that are nourished in the blade all winter & grow vp towards earing in the spring. Some there be that will you to sow before, onely in dry ground and hot countries.

The time for sowing.

Some againe would haue you sowe in cold countries after the *Autumne Equinoctial*, in hote countries later, least they should florish before the winter, and be destroied of wormes, or blasted. Some on the other side make haste, saying, That soone sowing sometimes deceiues, but late sowing euer. It is good reason to sowe timely in wette grounds, that the seede rot not with ouer much moisture, and later in dry grounds, least lying long and not sprowting, it come to nought. Also, in timely sowing, to sow thicker, because it is slow in rooting, and in later sowing, thinner, least with the thicknesse it be choked. Sommer seedes, which are sowed before the rising of the seauen starres, and in the Spring, as Beanes, Pease, & such, Pulse, Millet, Panicu, *Sesamum*, Sommer, Barley, Flaxe, Hempe, Oats, Buck, *Sporia*, and such other, are sowed in the Spring time. In *Asia* and *Greece* they sowe all as they say, at the setting of the seauen starres. Now, although there be certaine precepts of the time of sowing, and how much seed is meete for euery quantitie of ground:

Late sowing alwaies faileth

Sommer graine.

surely,

ſurely, they might as I haue ſaid before, for their owne countrey and nature of their ground, giue a kind of geſſe: but to determine any thing herein certainely, there is no man that can do it, but the ground and euery mans owne practiſe is herein the beſt Maſter. One ancient generall rule of husbandry there is, wherein wee are warned in cold Countries to ſow late, in temperate Countries ſooner, and in hot regions ſooneſt of all. *Eratoſthenes* ſaith, that *India* is ſubiect to much raines in ſommer, and that then they ſow Flaxe, *Seſamum*, Riſe, and *Millet*: and in winter, Wheat, Barley, Pedware, and other fruits that we haue not. *Heſiodus*, the Prince in his time of husbandry, wils vs to ſow according to the cuſtome of Greece, his naturall countrey. *Virgil*, *Cato*, *Varro*, *Columella*, and *Plinie*, appoint their rules for Italy, whoſe minds if you will haue followed in all other places, you ſhall but ſeeke to couer euery potte with one couer. But to come to the matter, ſith the ſeeds of ſundry natures, require ſundry times of ſowing, and diuers ſorts of ordering, and that herein euery countrey hath his guiſe, I will here (obſeruing ſuch cuſtomes as are moſt generall to them all) ſeuerally ſhew you of euery ſeed by him ſelfe, and ſo declare vnto you the order of their ſowing. And firſt, amongſt all the fruits and graine that the earth doth yeeld for our ſuſtenance the chiefeſt place is rightly giuen vnto wheat, called in Greeke σῖτος, in Italian *Grano*, in Spaniſh *Trigo*, in Dutch *Weyſs*, in French *Fourment*, as a graine moſt needful for a man, and therefore moſt fruitfull, becauſe God hath ordained it to nouriſh man withall. It is wonderfull what yeeld it hath bene of in ſome countries. *Auguſtus* his deputie ſent him from *Biſaice* in *Africa*, of one graine of wheat foure hundred branches. And *Plinie* witneſſeth, that in the ſame place, one buſhell hath yeelded a hundred and fiftie buſhels.

A general rule

Wheate.

RIGO. There are that hold opinion, that this which the common people call Wheate, the Germans *Weyſs*, and the Hollanders *Terue*, is not the true Wheat, but a kind of Rie, and that the true wheate which the Italians call *Grano*, groweth onely in Italy and in Spaine.

CONO. That which growes in Italy and Cicil at this day, differeth not from ours in faſhion, colour, nor flowre, though the graine there be ſomewhat great, and the flowre more clammey,

which maketh it that it can not be long kept, ſpecially about *Rome*. And wheras our wheate is either bearded or pollard, theirs is altogether pold: we call it pold or pollard that hath no Aanes vpon the eares. And that wee call the Aane, which groweth out of the eare like a long pricke or a darte, whereby the eare is defended from the vaunger of birds. With *Virgil* the Aane is vſed for the corne, as the parke for the wheate. *Gluma* is the huſke of the corne whoſe top is the Aane. *Frit* is the ſmal graine leſſer thē the Corne that growes in the top of the ripe eare. To returne to the wheat, I graunt there are ſome that doubt of this wheate of ours, ſuch hath beene the iniurie of the time (as all things almoſt forgotten) wee ſcarſely know how to name the food that wee dayly feede of. For my part, I will follow common vſe as a miſtreſſe in ſpeech. The olde writers haue written of ſundry ſorts of wheat, whereof they haue thought that moſt needfull to bee ſowen, which they called *Robus*, as the fayreſt and waightieſt. The ſecond called *Siligo*, they vſed in their fineſt cheate. The third, they called *Trimeſtre*, becauſe it would be ripe in three monethes after the ſowing. Though *Columella* allow no ſuch kind, yet was it moſt auncient with the Greekes, and called *Trimenon*, growing onely in the cold countries. In *Thracia*, they haue a kind that is ripe in two monethes, and is couered with a number of huſkes, againſt the extreame cold of the countrey. In our Countries alſo wee haue Wheate and Rie, that wee ſow with our Sommer graine, as wee likewiſe doe Rape ſeede, but to no great commoditie: for the winter ſeedes too farre exceed them, and being nouriſhed in the earth all winter, they proue, as *Theophraſtus* ſaith, of more ſubſtance and profit. Amongſt al theſe ſorts *Plinie* recounteth the Wheate of Italie to be the beſt, both for beautie and weight. We vſe with vs onely two ſorts, differing in this, that the one hath ſmooth eares without any beards, the other with long beards or Aanes, very ruffe and ſharp, not much vnlike to winter Barly: in all other properties they are both alike. It is ſowen in September, the ſeaſon being faire, the ground thriſe plowed and well raked or harrowed, although you may ſow it very well after once plowing vpon ground where Peaſe, Tares, or Buck hath beene newly had of, in a good ſoile. *Plinie* & *Columella* would haue you ſowe of Wheate and Rie, fiue buſhels vpon an acre: but as I haue

The time for wheat ſowing.

haue ſaid before, this meaſure is to be meaſured with reaſon. Wee at this day ſow not ſo much Wheate vpon an acre as Rie, nor ſo much Rie as Barley. It is beſt, if the winter be like to be cold, to ſow the ſooner: if warme, the latter. Wheate delighteth in a leuel, rich, warme, and a dry ground: a ſhadowed, weedy, and a hilly grouid, it loueth not, though *Plinie* ſay ẏ hill yeeldeth harder wheate, but no great ſtore. After it is ſowen, it putteth out a great company of ſmal rootes, and appeereth at the firſt wy or blade: it hath ſundry ſtalks, but ſuch as can not braunch all the winter, as other winter Corne is, it is nouriſhed in blade: when the Spring draweth on, it beginneth to ſpindle: vpon the third or fourth ioint thereof, commeth out the eare, which firſt appeereth incloſed in the blade, it floureth the fourth or fifth day after: if it growe too ranke at the firſt, it is eaten downe with cattell, or in ſome place mowed: it is after weeded, it flowres about the 10. of June, ſooner or later, as the yeere falles out, euen at one time almoſt with the Vine, two noble floures with comfortable ſauour floriſhing at once. *Varro* affirmeth, that the wheat lieth fifteene daies in the blade, flouriſheth fifteene, & ripeth fifteene: after it hath flowred it wareth greater, and as *Theophraſtus* ſaith, is within forty daies after full ripe, wherwith the lateſt they reape in the eight moneth. Other ſay in ſix and thirty daies, & reaped in the ninth moneth. It neuer eares, till al his ioints or knots be growen. There are fower ioints in wheate, as *Plinie* ſaith, and eight in Barley: but in our countrie and our daies, both Wheate, Rie, Barley, and Oates, haue but foure, and that not alwaies. Before the full number of the ioints, there is no appeering of the eare: which when it commeth, beginneth to flowre within foure or fiue daies, and ſo many, or little more, it fadeth. When the floure is gone, the graine begins to ſwell, and in foure or fiue daies, after to ripe. The blade of the wheate is ſomething like a Sedge, but narrower then the Barley: the Spindle, Stalke, or Strawe thereof, is ſmoother and gentler, and not ſo brittle as Barley. It is cloſed in many cotes. The ſtalke that beareth the eare is higher then that of Barley, the eare groweth more vpright and farther from the blade, the chaffe is ſofter, ſweeter, and more full of iuice, the eare of wheate is out of order and vneuen, as well of the Pollard as of the bearded, wheras Barley hath his eare of iuſt number

and in perfect ayer. In *Bactria*, it is said a graine of wheate is equall in quantitie to an eare of our wheat. In Babylon, the blades both of wheat and Barley, as *Herodotus* reporteth, are foure inches hyde. Wheat, as *Columella* writeth, after the third sowing changeth to Rie, which hath beene knowen in Germanie, as I said before, in many places. Of wheate is made *Amyl*, the making whereof *Cato* and *Dioscorides* teacheth. After wheat we sow with vs Rie, There are that thinke it to be that which the Greekes call ὄλυρα, though *Homer* take ὄλυρα, for a kind of foode for horses: some others take it for a kind of wheate. *Herodotus* saith, bread was made of it. Of *Laurentius*, it is called *Far*, of *Gasa*, *Siligo*. Diuers learned men call it *Secale*, and take it for *Plinies farrago*: the Frenchmen call it *Segle*, the Dutchmen *Rock*, the Italians, almost as the Latines *Sagala*: the graine is something blacke, and maketh blackish bread. But to passe ouer all controuersies, I follow the Country speech, and take *Siligo* for our common Rie, which is sowed immediatly after wheat about the end of September, or in the beginning of October in good ground: in sandie & grauelly ground, it is sowed in February, and called Sommer wheate: it requireth the best ground, warme, and fast, and refuseth not light ground and grauelly, so it be helped with doung: it loueth wette ground as ill as Wheat, then both require to be sowen in a deepe mould and a playne soile: but Rie is sowed a little after wheat, in the sowing whereof, you must occupie a third part more then of wheate; it prospereth lightly in any ground, and many times with the yeeld of a hundred for one. It must be sowed after the third plowing as wheat, and harrowed much after the same sort, the stalke or steale thereof, is smaller then the wheate stalke, tauler, and stronger, his eare hangeth downewards, and therefore more subiect to blasting, because it receiueth and keepeth the water that fals while it flowreth, and suffereth the violence of mistes and frostes: the straw thereof is gentle and flexible, seruing for Vines and couerings of houses. Now followeth Barley, accounted in the old generations among the worthiest sorte of graine, and not of small estimation at this day. The Italians call it *Beade* or *Beaue*, or *Orze*: the Spaniards *Cenada*: the Dutch men *Gerst*: the French men *Orge*: the Grecians κρίθη: and though it bee vsed in Greece and Italie, and such warme and

Barley.

fruitfull

fruitfull countries for cattels food, as *Homer* also witnesseth, yet in the Northerne Countries it supplies the place both of bread and wine. There are of it two sorts *Hexastichon* & *Polystichum*, whose eares are three, foure, and sometimes six square, and diuers eares springing from one graine, euery eare conteining aboue fourescore graynes, so woonderfull are the giftes and blessings of God. The other sort is called *Distichon*, hauing in the eare but two rankes or ordersonely. Againe there is one kinde of it to bee sowed in winter, an other for Sommer. The winter Barley is of better yeeld, but it is soone hurt, specially with much wette and Frosts following. There is nothing more hurtfull to winter Corne, specially Barley, Rape seede, and Rie, then the wette of Winter, nipped with often Frostes, and after a warme thaw to bee presently frozen againe: both the sortes of Barley require ground that is very rich. Winter Barley after two or three plowings, is to be sowed in September: Summer Barley in March, or Aprill, after twise plowing: and many times, necessitie forcing, after once plowing: in the sowing, you must occupie more seede by halfe, then in sowing of wheate: it requireth a mellow and a fat ground, and therefore is best sowed, where the ground is most manured. The winter seede flowreth in May, and is ripe in June at the furthest. This kind was not wont to be sowed in these parts, but great numbers now mooued by my example, doe vse and receiue great gaines by it. The sommer Barley in many countries is ripe and ready in three moneths after the sowing. In *Aragon* as *Plinie* writeth, it maketh double haruests euery yeere. The seuenth day after it is sowne, it cõmeth vp, and one end of the seed runneth downe in roote, the other, the sooner springeth, cõmeth vp in blade: the greater end of the graine maketh the root, and the slenderer the flowre. In other graine the root and the blade spring both frõ one part, the blades of both kinds are ruffe. It must be gathered with more speed then other graines, for the straw of it is very brittle. Of Barley is made, as *Dioscorides* writeth, both Beere and Ale.

RIGO. I like your Beere you haue, excellently well, I praie you tell me in what sort you make it?

CONO. I will not hide my cunning in this matter. My Barley is first steeped in a Cesterne of water a day or two, if it be

winter seed it is harder hulled, and requireth the longer watering. The Sommer graine is thinner, and requireth a lesser time. When it is watred, I drie it vpon a floore or a keele, till it swel and breake, putting out as it were litle berds or threds, if it bee laid thinne, it will in sommer, specially in March, drie and breake of it selfe without any fire. You must take good heed that in sprowting it open not to much, and loose his flowre. This being done I grind it, and put the meale into a Mash Fatte, whereunto I put my licour sodden, and after let it seeth three or fowre times, adding vnto it, both for holsomnesse and taste, the flowre of the Hop: after this, I put on Yeest, and set it a working, and then cleanse it. The more it is cleansed, the holsomer and cleerer it is: that which commeth of the spurging, is kept both for Brewing and Baking: the drinke will be the better, if you put to it a fourth part or sirth part of wheate: the more corne you lay on, the pleasanter and better coloured will your Beere be. Your greatest care, must be to see it well sodden, well cleansed, and well Hopped, otherwise Malt of it selfe wil soone corrupt. Obseruing this order, your drinke shalbe both holsome and pleasant: that endureth best and longest, that is brewed in March. There is made of barley *Alica*, a reasonable good meat, and *Ptisan*. How they must be made, you may reade in *Plinie*: Next to wheate and barley, foloweth *Zea*, which the common people both in Italy, Spaine, and Flaunders, call *Spelta*, the French cal it *Espeltra*, with *Homer* is greatly commended, ζελοφοροι ἀρουραι, the fieldes that beareth the *Zeam*, being as *Galen* saith, the meane betwixt wheat and barley, for he hath the qualities of each of them, and is of two sorts, the one in stalke, ioint, and eare, like to wheat, & carieth in euery huske two seedes, and therefore is called διζυξ, the other hauing both stalke and eare shorter, and but one graine in euery huske, growing in to rankes, and in the toppe resembling Barley with his sharpe Aanes. In Italie, specially about *Mirandula* and *Concordia*, it is vsed in prouender for Horses, it is not in these Countries in vse. I would sowe it here, sith the ground will well serue for it, and that both bread and drinke might be made of it very well, but that it is something troublesome to grind, because of the double huskes. It desireth a moyst ground, riche and good, it is sowed, after the same maner that wheat is sowed, in September or October: it flowreth

Zea.

in

in June, and is ripe in July, very meete for could countries, because it can abide frosts and stormes.

RIGO. There is (as I remember) a kind of wheat called *Far*, the auncient people called it *Adoreum*, that groweth in many countries. Far Adoreum.

CONO. You say true, for with the old sort *Far* was a generall name to all corne, as wheat *Far*, Barley *Far*, and Rie *Far*, and when mils were not yet deuised, they did beate their corne in morters, wherof came, that the meale was called *Farina*: yet after, was the name of *Far* onely giuen to *Adoreum*, trough *Columella* called it alwaies *Far Adoreũ*, making foure sundry sortes of it. The Frenchmen call it *Brance*, the Italians *Sandala*, the Spaniards *Escandia*, the common people of our countrey call it *Farro*, the Dutch *Keskorne*, whose graine is very like wheate, but that it is shorter and thicker, and where wheate hath a clift, there hath it a rising: it is heauier then barley, and lighter then wheat, it yeeldeth more meale then any other Corne. The people of Rome as *Plinie* saith, liued with this Corne at the first three hundred yeeres, it groweth in Egypt without Aane, with a greater eare and a waightier, it hath in the stalke seuen ioints, and cannot be cleansed, except it be parched. Fraunce hath two sorts thereof, one of a reddish colour, which the people call redde wheate, the other whiter, which they call white wheate, the eare is three square, not vnlike to spelt. In Italie they make pottage of it for their labourers. *Far* or *Adoreum*, *Virgil* would haue sowen before the setting of the seuen starres, after the *Aequinoctiall* of *Autumne*: but in wette and cold barren grounds, it is best to sow it about the Kalends of October, that it may take deepe roote before the freezing and cold in winter. It is sowed in low ground, watrish, and chalky: after it is sowed, it must be harrowed, raked, and weeded: the raking looseth in the spring, the beaute shactes of winter. In raking or harrowing, you must take heed, as I haue said before, that you hurt not the rootes: weeding when it is knotted, seuereth the corne from all annoyances. The French men sow it in hollow furrowes, because it is very subiect to blasting, thinking thereby to preserue it both from blast and mildew. To sow it in hie ground is discõmended, though it prospereth there well inough, because rattell can not away with it, for, the

sharpnesse and ruffnesse of the eares, and because it requireth great labour in getting of the huskes, which if it be not cleered of, is neither good for man nor beast: the vncleane Chaffe doth hurt with the Cought the Cattels lungs. Amongst the winter seedes, Rape seed doth challenge his place, which I take to be the seede of the Rape, which *Plinie* maketh for his third kind, and wilde. whose roote, like the raddish, runneth in length, the leaues beyng ruffe like the other kindes, and the stalke bushy and full of branches: the roote of it is good for nothing, but is onely sowed for the seed, whereof they make Oyle seruing for poore mens kitchins, fastes, and lights, specially in Germanie where they want the oile of Oliues, whereby ariseth great gaines to the husbandman. In the hot Countries where they haue other oyle ynough, this seede is of no vse, but in feeding of Birdes: it is sowed in the end of August, or the beginning of September: how be it, sometime it is sowen in March among the Sommer seedes, but to nothing so great a profite: it is casse into very rich ground or well manured, thrise plowed and well tilled, it must be sowed very thinne: for beyng a very small seede, it must not be sowed with the full hand as Wheate is, but onely with three fingers: it flowreth in March or thereabouts as the yeere is forward, and continueth his flouring a long time: the floure is yellow and very sweete, wherein Bees doe much delight: as soone as it hath left flowring, it is presently ripe, it groweth two cubits in height, bearing a plentifull seed in little small Cods, it rendereth for one bushell, a hundred bushels of seed. Hitherto haue I spoken of Winter seeds, now must I tell you of such as are sowen towards Sommer.

Rape.

RIGO. Will you speake nothing of the Rape roote, which is greatly occupied of the husbandman, & not to be despised as a thing that groweth in great quantitie, and is meetely good meate both for man and beast.

CONO. The Rape is named of the Greekes ῥάφυς, in Italian Rapo, in Spanish *Nabo*, in French *Rauen*. The ordering of which, though I tooke it to belong to the garden, wherin you are able to say more then I, yet because you require it, and that sometime the husbandmen do plant thē in their fields, I will tel you as much as I know therein. There are two kinds of them, the first doth

roote

roote all in length like the Raddish, which in many places of Germanie is vsed for a daintie meate, the other either groweth in great roundnesse, or else very flat: they are nourished with mists, frosts, and cold, three monethes together, & grow to an exceeding greatnesse. *Plinie* writeth, that he hath seene Rootes of them that haue weighed fourtie pound. Some say, they haue seene of them that haue weighed an hundred pound. It is woonderfull, that of so little a seed should come so great a roote. The Grecians make two kinds of them, the male and the female, both comming of one seede, the male when it is sowed thick, and the female when it is sowed thin. There are two seasons for the sowing of it, either in March, which will be ripe about the tenth of June, or in Julie, or August, after the first plowing, commonly vpon the ground where Rie & winter Barley haue been newly had of. It is thought they are the sweeter by lying in the ground all winter, when as the encrease is not in the leafe, but in the roote. They are also sowed (as *Plinie* writeth) in hot and moist countries in the spring, and will the better encrease if they be sowed with chaffe, who would also haue the sower naked, and in casting the seede, to wish good lucke to himselfe, and to his neighbors. They are preserued from the Caterpiller, which commonly consumeth the yoong leaues, by mingling ẏ seed with Soote, or steeping them all a night in the iuice of Houseleeke: *Columella* affirmeth, that he himselfe hath seen it prooued.

RIGO. Now proceed (I pray you) with your Sommer seedes.

CONO. The Sommer seedes are almost all such as are ripe within three monethes, or fower at the vttermost after they are sowen, and some of them sooner, if the ground and the weather be good. Among the sommer seedes we will first talke of graine, and after of pulse. Of the graine, Oates are the first that are sowed, Oates.
though *Virgill* count them barren, and *Plinie* counteth them rather weeds then corne, affirming that Barly when it prospereth not will many times turne to Oates: yet the Frenchmen & the Germans count (it this day) the best prouender for Horses, & foode for Cattell. *Plinie* also witnesseth, that the Germans vsed to make pottage of Oates. And *Dioscorides* maketh mencion of Oten pottage, ἀλφιτοζωμὸς βρόμου χύσις, pottage of gruel is made of Oates, it is

called

called of the Greeks βρόμος, in Italian *Vena*, in Spanish *Auena*, in French *Auoine*, in Dutch *Hauer*, which though it grow not commonly in Italy, yet vpon *monte Ficelto*, and in the kingdome of Naples about *Siponto* it is found. We haue amongst vs two kinds of them, one full and weightie, seruing in deere yeeres to make bread and drinck of, specially if it be medled with a little Barly, and this kind prospereth in rich and new broken vp ground exceedingly. The other kind is lighter, which the common people call Gwen and Brumhauer, it is very light, and yeeldeth but little flowre nor foode, it groweth vpon sandie and barren grounds, and serueth well for Cattel & for horse, both the kinds haue bushy tops, from whence hangeth the seed in likewise, resembling the grasse hopper, the flowre of it is white, & from one graine, there springeth diuers stalkes, with *Dioscoridos*, *Bromos* is a kind of oates that resembleth wheat in the stalke and the blade, and groweth like wild wheat, *Theophrastus* calleth it ἀγρόσιτον. The oate is not dangerous in the choise of his ground, but groweth like a good fellow in euery place, where no seede els will grow. Of the like disposition almost is Buck or Beechwheat, vnknowen to our old fathers. It is called Buck. φηγόσιτον, Beechwheat, or μελάμπυρον, Blackwheat, though μελάμπυρον signifieth an other grayne, I had rather call it Beechwheat, because the graine thereof is threecorned, not vnlike the Beechmast both in colour and forme, differing onely in the smalnesse. The stalke is very great, and straked like to the greater fearne: it hath many branches with a bushy top, a great sort of white flowres in a knop, like the flowres of elder: it flowreth long together, and after appeareth the graine, first white and greenish, in shape threecorned: after they be ripe the colour chaungeth to black or brownish like a chestnut. This grayne hath not long since been brought from Russia and the Northerne parts in Germanie: now is it become common, and vsed for fatting of Hogges, and serueth the common people in deare seasons to make bread and drink withall, it may bee sowed in any ground how bad so euer it be: howbeit, it doth best in good ground, & is sowen in Aprill, and May, and in June, after the reaping of rape seede. You must sow lesse of it vpon an Acre by a fourth part then of Wheat or Rie: it is much vsed to bee sowed vpon the ground where Rapes grow, whereby the ground doeth

doeth yeeld a double crop in one yeere. When it is sowen, it commeth vp, if it be moist weather, within foure or fiue daies after, hauing two leaues at ẏ first appearing, not much vnlike to purcelaine. Amongst the sommer seeds is also receiued sommer Barley, which from the Sunnes entring into the Aequinoctiall, till the end of March and Aprill, is sowen, and is reaped againe for the most part in three monethes, or at the vttermost foure. It requireth (as winter Barley doth) a rich and a mellow ground, and to be sowed after twise plowing, though sometime for necessitie it is sowed after the first plowing. And though it yeeld not so good nor so perfect a graine as the winter Corne doeth, whose graine as *Theophrastus* writeth, is farre more perfect and of stronger substance, bringing greater straw and weightier Eares, yet because it is harder husked, and the Summer seede more fine and gentle, is therefore of most men desired, and counted to yeeld more flowre then the winter graine: some againe prefer the other *Millet*, called in latine, *Millium*, in greeke μελιν, in Italian *Milio*, or *Miglio*, hauing as it were a thousand graines in a eare, as *Festus* seemeth to auow, in Spanish Mijo, in French *Millet*, and in Duch *Hyers*, where they make pottage of it and bread. The Russians and Moscouians are chiefely nourished with this kind of pottage, which they make with the flowre mingled with milke, and the blood that they let from their horses. The men of *Ind*, as *Plinie* sayth, know no other graine but Barley and Millet, which grew in his time plentifullest in *Campania*, it is the best leuen that may be made, neither is there any graine comparable to it for weight, that more increaseth in baking: for of one bushell hath been drawen three score pound of bread, and a bushell of sodden meate, made of three quarters wet and vnsod. It is sowed at this day in euery place, though very little in the low countrey, it groweth with a stalke full of ioynts a cubite high, a leafe like a reede, a round and a small seede hanging downe in long rimmes with many tops, it groweth sometime seuen foote hie, it delighteth in a watrish moorie ground, & in grauell, so it be now and then ouerflowen, it hateth drie and chalkie grounds. Some giue counsell to sowe it first in a colde and wette ground, and then in a hot ground: before the Spring you must not sowe it, for it delighteth much in warmth. A little seed of it, is sufficiēt for a great deale of ground: if it

Sommer Barley.

Millet.

be

be sowed thick, it comes to nought: a great handfull will serue a whole Acre, wherefore in raking, you must rake out what is more then needfull: an acre beareth fourtie bushels, if it be well sowed, euery seed yeeldeth about a pottell. It is forbidden to be sowne among Vines or fruite Trees, and must continually be weeded and raked. When the eare is full growen, it must be gathered with the hand, and dryed in the Sunne, least the hotte weather shatter the seedes. This graine may very long be preserued, for being well laid vp where the winde can not come, it will well last an hundred yeere. There is an other like graine that they call Indian Millet, with a great graine, and a blacke and big reedy stalke, which was first brought into Italie in the raigne of *Nero* which (as *Plinie* saith) was called *Loba*, whereas *Lobæ* are rather the Coddes of all Pulse, and *Phobæ* the manes and tops of Millet, as it appeareth by *Theophrastus*. *Panicum* is called of the Greeks πανικον, of the Dutch *Pfennich*, or *Heidengreisis*, of the Italians *Panmacho*, the Spaniards *Panizo*, the Frenchmen *Paniz*, so called of ỹ little Pannicles wherein the seed lieth. It commeth vp like Millet, with many leaues, and slippes, glittering with a reddish bushie toppe, full of seeds like Mustard seede, some yelow, purple, blacke, and white: it must be ordered in all things almost as Millet: being sowed in Sommer, it is ripe in forty dayes after: in other places sowed in May in wet ground, it is to be gathered in September. The harueſt, and the vse of it, is almost all one with Millet, neither can it as Millet be fined without parching, when it begins to spindle, it must be well weeded, least the weedes ouergrow it: being well dyest with Cheesill and Milke, it maketh indifferent good meate, in bread it is not so much vsed as Millet: for the bread is very drie, & crumbleth like Sand or Ashes, beeing altogether without moisture or cleauing: but the common people remedying that with Larde or Oile, do make a shift with it as well as they can. They that dwell about *Pontus*, are sayde to esteeme it aboue all other foode, as the people of *Nauarre* do at this day. In many countryes it is vsed onely to feede Pigeons withall. Of the number of outlandish graine, is Rise, in shape as *Theophrastus* sayth, lyke Darnell, hauing a bushie toppe like Millet or Pannicle, but no eare: his grayne is lyke the kinde of Barly called *Zea*, the leaues are thicke like leaues of Leekes, but broader,

Pannicle.

Rise.

the

the ſtalke a cubite hie, the floure purple. This graine is but geaſon in France and Germanie, but in Italie and Lumbardy common, where it is called *Elriſo*, and *Meneſtro Delriſo*, the French men leauing the firſt letter, do call it *Riſon*, the Greekes ὄρυζα, the Spaniards cal it *Arroſi*, *Plinie* ſuppoſeth it to be engẽdred of the water Sedge. There is made of it Furmentie, as *Horace* calles it Riſe Furmẽty. It is ſowen in March as Millit & pannicle is. The Indians (they ſay) do bruſe it before they ſow it, to make it the lighter of diſgeſtion. And as *Strabo* reporteth, they make drinke of it.

RIGO. What ſay you to *Seſamum*, that was greatly in vſe in the old time?

CONO. *Seſamum* is named with the Greekes σήσαμον, the Italians *Seſamo*, the Spaniard *Aionioli*, the Frenchmen *Iugiolin*. In times paſt, it hath bene more vſed and greatly commended, both of *Columella* and *Plinie*. At this day it is knowen to a very few, as a great ſort of ſeeds els are, inſomuch as the very corne that we daily feed of, we ſcarſely know what it is. Some reckon it in the number of Graine, and ſome of Pulſe: the ſtalke thereof is not like Millet or Pannicle, full of ioints, but plaine and ſmooth like a reede, the leaues thereof ruddy, the ſeed white, not ſo bigge as Linſeed, and is conteined in litle knoppes like Poppie: it is ſowen before the riſing of the ſeauen ſtarres, after the manner of Italy. *Columella* ſaith, that he hath ſeene it in *Cilicia* and *Syria* ſowed in June and July, and reaped in *Autume*. It requires a mellow blacke mould, though it will grow vpon good ſandie ground, and forced ground, raine is hurtfull vnto it after it is ſowed, where as it doth good to all other Graine, no great Cattell nor Vermine will meddle with it, it hurteth ground very much, becauſe of the great quantitie and thicknelle of the ſtalke, and the number of the rootes. *Plinie* writeth, that it was brought out of India, and vſed both for meate and oyle. But to returne to ſuch graine as we are acquainted with. Amongſt the ſommer ſeedes is Miſcelin to be reckoned. The huſbandmen doo ſometime make a medley of ſundry ſortes of ſeedes, and ſowe them partly for Cattell, & partly for hope, that though ſome of them faile, yet ſome will growe. But here muſt you beware, leaſt you mingle not winter Corne and ſommer Corne together, for that were a great ouerlight, & one of them muſt needs periſh. Some barley may well Seſamum?

well be mingled with Otes or Buck, as wel for brewing, as for feeding of cattell: & Tares or other like Pulse may be mingled with Oates, as very good for beasts. They are to be sowed in time and place as I haue told before, in my seuerall entreating of them.

RIGO. You haue well satisfied me for Graine and Corne, you may now (if it please you) do as much in Pulse.

Of pulse.

CONO. Pulse or Pedware, is called of the Greekes ὄσπρια the other parts of the fruites of the ground: of these there are sundry sortes as you haue seene of Corne: some put Millet, pannicle, and *Sesamum*, to this kind, because *Columella* sometimes puts them in the number of Graine, and somtime of Pulse: but I following *Plinie* herein, doe put them amongst the kinds of Graine, accounting those to be Pulse, whose seeds are conteyned in coddes, as Beanes, Pease, Lentiles, Tares, Chyches, Fitches, and such like, which all are to be sowen in the spring. Of all kind of Pulse, the greatest honour is due to the Beane as *Plinie* witnesseth, as to a Pulse that is most commodious for man and beast. In Greeke it is called κύαμος, in Italian & Latine *Faba*, in Spanish *Hauas*, in French *Feue*, in Dutch *Bonen*. This amongst all other Pulse groweth in height without any stay, it hath a thicke leafe, a creasted flowre of diuers coulours, spotted white and blacke, which *Varro* calles the lamentable letters, it hath a long codde, his fruite within broad, like the nayle of a man, of diuers coulours, it appeareth at the first with many leaues like a Pease, and not with one alone, like Wheate. It is sowed first of all other Pulse in the spring time as *Virgil* will haue it, and timely, because of *Fabalia*, which is the offall of the Beanes, for both the cods and the stalke, is a food that cattell much delights in. *Columella* reporteth how hee hard a skilfull husband say, that he had rather haue the offall of beanes timely sowed, then the Croppe of that which is ripe in three moneths, you must sowe them in the encrease of the Moone, and after once plowing. It is said, that if they be enclosed in Goates doung and sowed, they will yeelde great encrease, and that the partes that are eaten or gnawne, in the encrease of the Moone will fill vp againe. If they be sowed neere to the rootes of Teers, they will kill them. Some hold opinion, that if they be steeped in Capons blood, they will be safe from all hurtful weeds, and that layed in water a day or two before they

Beanes.

be

be sowen, they will grow the sooner. The Beane delighteth in rich and well dounged ground, as all other Pulse doth: wette and low ground it doth not refuse, though all the rest desire drie ground, it wayeth not weeding, being able to ouergrow them. Of all other Pulse it onely springeth with an vpright stalke full of knottes, and hollow. And where as all other Pulse are long in flowre, this floureth longest, flowring fourtie daies together, one stalke beginning when others end, and not al at one time as wheat, they codde in sundry dayes, the lowest part of the stalke flowring first, and so vpward still in order. So fruitfull are they in some places, as you shall finde one stalke to beare a hundred Beanes. The Beanes sticke close to their Coddes, the black in their toppes, the Latines call *Hilum*, the coddes *Valuuli*, the wormes that breed in them, *Mida*. *Lomentum* is the meale which the people in old time did vse for the smoothing of their skinnes. *Fresa Faba* was the Beane that was but smally broken, and hulled in the Mill. *Refrina* was that which they vsed to offer in sacrifice for good lucke with their Corne. It is good to steepe your beanes in the water of Saltpeeter, a day before you sow them, you shall keepe them from Weuells as (*Palladius* saith) if you gather them in the wane of the Moone, and cherish them, & lay them vp before the encrease. Beanes, and all other Pulse do mend the ground that they are sowen in. The next to Beanes in worthinesse and sowing is Pease, called in Greeke πίσον. in Italian *Pise*, and *Piselle*, in Spanish *Aruera*, in French *Pese*, in Dutch *Erretem*, a pulse that groweth with hollow stalkes and full of branches lying vpon the ground, many leaues and long, the coddes round, containing in them round seedes and white: though *Plinie* write, that they be cornered as chych, of which sort wee haue some at this day blewish, with flowres in shape like the Butterflie, purple coloured toward the middest. There are two sortes of pease, the one sort coueteth to climbe aloft, & runneth vp vpon sticks, which with litle winders he bindeth himselfe, and is for the most part only sowen in gardens, the other sort groweth low, and creepeth vpon the grouid: both kindes are very good to be eaten, specially when they be yong and tender, they must bee sowne in warme grounds, for they can in no wise away with cold, they are sowed either vpon fallowes, or rather in riche and yeerely bearing ground once plowed, and as Pease.

all

all other pulse, in a gentle and a mellow mould, the season beyng warme and moist. *Columella* saith, that ground is made very riche with them, if they be presently plowed, and the coulter turne in and couer that which the hooke hath newly left. They are sowed amõg summer Corne, cõmonly with the first. First Beanes, Pease, and Lentiles, then Tares, and Oates, as is said before. Pease and Tares must be sowen in March and Aprill, and in the wane of the Moone, least they grow to ranke, and flowre out of order, whereas the best sowing for all other pulse and graine, is in the encrease of the Moone. There are that count Pease to be the Pulse that the Greekes call ἔρεβος, the Latines *Ervum*, the Italians *Ervo*, the Spaniardes *Yerno*, the Dutch men *Erwen*, of which there are two kinds, the one white, the other red. The later is wild, and groweth in hedges and corne fields: it is a small plant, hauing his leaues narrow and slender, his flowre either white, or medled with purple, growing neere together like Pease, there is no great businesse about it, it delighteth in a leane barrayne ground, not moyst, for it will bee spilt with too much rãckenes: it must be sowed before March, with which moonth it agreeth not, because it is then hurtfull vnto cattel. *Eruilia* is a pulse like smal beanes, some white, some blacke, and others speckled, it hath a stalke like pease, and climeth like a Poppe, the Coddes are smooth like Peascods. The leaues longer then the leaues of Beanes: the flowre is a pleasant food to Bees. In Frãce and Lumbardie it is called *Dora* or *Dorella*. *Phaseolus* in Latine, in Greeke φασηλος κηπαιος garden smalar, some call it *Fasiolum*, and *Dolichium*, among the Italians some call it *Faginoli*, some *Smilace, de gli horti*, others *Faginolo, Turcheses*, others *Lasanio*, the Spaniards cal it *Frisoles*, the Frenchmen *Fasioles*, and *Fales Pinccos*, the Dutchmen *Facelen*, or wild bonen. It is a kind of Pulse, whereof there are white, redde, and yellow, and some specked with blacke spots, the leaues are like Iuie leaues, but some thing tenderer, the stalke is slender, winding with claspes about such plants as are nert him, running vp so hie, as you may make Herbers vnder him, the cods are longer then Fennigreeke, the Graynes within diuers coloured and fashioned like Kidneys: it prospereth in a fatte and a yeerely bearing ground, in Gardens, or where you will: and because it climeth aloft, there must be set by them poales or staues, frõ

the

the which running to the toppes, it climeth vpon trees, ſeruing wel for the ſhadowing of Pearbers & ſommer houſes. It is ſowen of diuers from the Ides of October to the Kalends of Nouember in ſome places, and with vs in March, it flowreth in ſommer, the meat of them is but indifferent, the iuice not very good, the Cods and the Graines are eaten together, or like Sperage. The Iewes ſell them at Rome preſerued, to be eaten rawe *Lens* and *Lenticula*, in Lyndes. Greeke φακὸς and φακὴ in Italian *Lendi ie bon menaſtre*, in Spaniſh *Lenteza*, in French *Lentilla*, in Dutch *Linſen*, is a Pulſe very thick and buſhy, with leaues like the Tare, with three or foure very ſmall Graines in euery Cod, of all Pulſes the leaſt, they are ſoft & flatte. The white ones for their pleaſantneſſe are the beſt, and ſuch as are apteſt to ſeeth and conſume moſt water in their boyling.

It is ſowen with vs in Germanie in March and in Aprill, the Moone encreaſing, in mellow ground, being rich, and dry: yet *Plinie* would rather haue the ground leane then rich, and the ſeaſon dry: it flowreth in July, at which time by ouer much rancknеſſe & moiſture, it ſoone corrupteth. Therfore to cauſe it quickly to ſpring and well to proſper, it muſt be mingled with dry doung before it be ſowen, and when it hath lien ſo mingled foure or fiue daies, it muſt be caſt into the ground. It groweth hie (as they ſay) when it is wet in warme water and ſaltpeter before it be ſowen and wil neuer corrupt being ſprinckled with Bengwing and Vineger. *Varro* willeth, that you ſow it from the fiue and twentie day of the Moone to the thirtieth, ſo ſhall it be ſafe from ſnayles. And *Columella* affirmeth, that if it be mingled with Aſhes, it will be ſafe from all annoyance. *Cicer* in Latine, in Greeke κίκερ, in Italian *Ceci*, *Cicere Roſſo*, and *Cicere biance*, in Spaniſh *Garuangos*, in French *Chiche*, & Ciche. in Dutch *Cicererbs*, is a buſhy kind of Pulſe, hauing a round Cod, and therein a couple of three cornered ſeeds, whereof there are that make three kinds, white, red, and black, differing onely in the colour of their flowre: the beſt kind hath a ſtickie ſtalke, crooked, little leaues indented, a white, a purple, or a blacke flowre. And whereas other pulſe haue their Cods long and broad, according to their ſeede, this beareth them round: it deligheth in a blacke and a rich mould, is a great ſpoiler of land, and therefore not good for new broken vp ground: it may be ſowen at any time, in March, in raynie

weather, and in very rich ground: the seed must be steeped in water a day before it be sowen, to the end it may spring the sooner: it floureth in June and July, and then falleth to seed: it flowreth a very long while, and is gathered the fourth day, being ripe in a very short time: when it is in flowre, of all other pulse it receiueth harme by raine: when it is ripe it must be gathered out of hand, for it scattereth very soone, and lieth hid when it is fallen. In the Chich there neuer breedeth any wormе, contrary to all Pulse else: and because it driueth away Caterpillers, it is counted good to be set in gardens.

Cicercula. *Cicercula* in Latine, in Greeke κεδρυρος. in Italian *Cicerse*, in Spanish *Cizerche*, it differeth from the Chich, onely in that it is somewhat blacker, which *Plinie* accounteth to haue vneuen corners as peasle hath: and in many places about vs, they vse them in steed of Peasle, esteeming them far aboue peason: for they both yeeld more flowre then peasle, and is lighter of digestion, and not so subiect to wormes. *Columella* counts it rather in the number of fodder for cattell, then of pulse for man: in which number are these that follow.

Tares & fodder for cattell. And first *Vicia* in Latine, in Greeke βικιον. in Dutch *Wycken*, in French *Vessac*, so called as *Varro* thinks of winding, because it hath tendrels or clasps as the Vine hath, whereby it climeth vpon such stalkes as grow next it: it groweth half a yard hie, leaued like Tintare, sauing that they be something narrower, the flowre like the flowre of Peasle, hauing little black seedes in cods, not altogether round, but broad like the Lintell: it requireth a dry ground, though it will also grow well inough in shadowy places, or in any ground with small labour, being not troublesome to the husbandmã: it requireth but once plowing, & looketh for neither harrowing nor dounging, but enricheth the land of it self, specially if the ground be plowed when the crop is of, so that the Stalkes may be turned in: for otherwise the rootes and stalkes remaining, doe sucke out the goodnesse of the ground: yet *Cato* would haue it sowen in grassie ground, not watrish, and in new broken vp ground after the deawe be gone, and the moisture dried vp with the Sunne and the wind. You must beware that you sowe no more, then you may well couer the same day: for the least deawe in the world doth spoile it. Neither must you sow them before the Moone be twentie foure daies old, otherwise the snaile will deuoure it: his time of sowing is as *Plinie* writeth,

teth, at the ſetting of the Sarre called the Berward, that it may ſerue to feed in December: the ſecõd ſowing is in January: the laſt in March. In Germanie they vſe to ſowe them in March or Aprill, chiefly for fodder for their Cattell. To ſow Tares, & as *Plinie* ſaith Beanes, in not broken vp ground without loſſe, is a great peece of huſbandry: they flowre in June, at which time they are very good to ſkowre Horſes: it is good to lay them vp in the Codde, and to keepe them to ſerue cattell withall. Tares and Oates make a good meſſine ſowed together. *Lupinus* in Latine, in Greeke λυπίνη μαγε, in Italian and French almoſt as in Latine, in Spaniſh *Altramuz*, in Dutch *Roomſche Boonen*, is a pulſe hauing one onely ſtalke, the leafe iagged in fiue diuiſions like a ſtarre, the flowre white the cods iagged, and indented about hauing within them fiue or ſixe ſeedes, hard, broad, and red, the leaues thereof do fall. This pulſe requireth leaſt trouble, and is of ſmall price, and yet moſt helpeth the ground of any thing that is ſowen: for there can be no better manuring for barraine Vineyards and Corne fields then this, which either vpon barraine ground proſpereth, or kept in the garner, endureth a wonderfull while: being ſodden and laid in water, it feedeth Oxen in winter very well, and in time of dearth (as *Columella* ſaith) ſerueth men to aſſwage their hunger: it proſpereth in ſandy and grauelly groundes, in the worſt land that may be: neyther loueth it to haue any labour beſtowed vpon it, nor weieth the goodneſſe of the grõud. So fruitfull it is, as if it be caſt among Buſhes and Briers, yet will it roote and proſper: it refuſeth both harrowing and Raking, and is not anoyed with Weedes, but killeth the weeds about it. If doung be wanting to mend the ground withall, this ſerues the turne aboue all other, for being ſowed and turned in with the plow, it ſerueth the turne in ſteede of dounging, it is ſowed timelieſt of all other, and reaped laſt, it is ſowed before all other Pulſe, a little after harueſt: couer it how ſclenderly you will, it careth not, an excellent good ſeede for an euill huſband, yet deſireth it the warmth of *Autume*, that it may be well rooted before winter come, for otherwiſe the cold is hurtfull vnto it. It flowreth thriſe, firſt in May, then againe in June, & laſt in July: after euery flowring it beareth his codde. Before it flowreth, they vſe to put in cattell, for where as they wil feed vpõ al other graſſe or weeds, only this for the bitternelle Lupines.

bitternesse thereof while it is greene, they leaue vntouched. Being dried, it serueth for sustenance both of man and beast, to cattell it is giuen medled with chaffe, and for bread for mans vse, it is mingled with wheat flowre, or barley flowre, it is good to keepe it in a smoky loaft, for if it lie moyst, it is eaten of little wormes and spoiled. The leafe keepeth course and turneth with the Sunne, whereby it sheweth to the husband euen in cloudy weather, what time of the day it is. *Fenum grecum* in Latine, in Greeke with *Theophrastus* & others βούκερως καὶ τύλη, with *Dioscorides* κερατὶς and αἰγόκερως of others τριγώνη, in French *Fenegres*, and *Fenigrent*, in Italian *Fenigraco*, in Spanish *Alholuas*, in Dutch, sometime by the Latine name, & commonly Rohorne and Lockshorne, commeth vp with a small stalke, the leafe lyke a Threeleaued grasse, it is sowed well in a slender barrayne ground, you must take heed you plow it thicke, and not very deepe, for if the seed be couered aboue foure fingers, thicke, it will very hardly grow. Therefore the ground must be tild with small Plowes, and the seed presently couered with Rakes. There are two sortes of it, the one called of the common people *Siliqua* or Codde, which they sow for fodder in September, the other in January, or the beginning of February, when they sow it for seede, it flowreth in June and July, when also it beareth his Codde, but the seede is not ripe till August: it is dressed to be eaten after the order of Luppins, with vineger, water and salt, some put to a little oyle: it is vsed both for fodder, and diuers other vses. Furthermore, of Pulse called of *Gellius Legamenta* we haue these generall rules, that they all beare cods, and haue single rootes euery one, except the Beane, the Chich growing deepest. The stalke of the beane and the Lupine is also single, the others are all full of branches and slender stippes, and all hollow. All Pulse for the most part are to be sowed in the spring, and require very rich ground, except the Lupine, that cares not where he lies, they are al sowen in the encrease of ỹ Moone, except Pease: if they be watred before their sowing, they prosper the better: they are speedily to be gathered when they be ripe, for they suddainly shotter, they will endure longest, being gathered in the change of the Moone. It is much to be regarded whether you will keepe or sell them, for the seeds in the encrease of the Moone doo wax greater, there are that preserue thẽ in earthen vessels, strawing

Fenugreeke.

ashes

ashes vnder them, & sprinckling them with Vineger, some vse ashes alone, other some vse to sprinckle them with Vergewin vineger, as I haue said of the Lentill. Moreouer, the Greekes haue willed to mingled with the doung a little saltpeter when you sow thē, whereby they shall the better seeth and be the tenderer, and if they be not presently tender, they will to cast into the pot a little Mustard seed, which will make them straight way well. *Theophrastus* addeth diuers things beside, which were to long to tell.

RIGO. It is needfull for euery husbandman to sow all these Graine and Pulse in his ground?

CONO. No, but as I said before, in speaking of ground and seed, you must chiefely sow such as best agree with the nature of your ground: how be it, there are some of them that refuse no grouid. There are certaine of them as *Varro* saith, that are not sowed for present necessitie, but for other afterturnes. And others againe that are of necessity to be sowen, as Corne for man, and Fodder for cattell: of which must special care be had, that there be no want of thē, without which we can not liue: as Rie, Oates, and Buck. Lupines and certaine pulse els for fodder, refuse no ground, though it be neuer so barren. Besides, when as the husband must not onely haue a care of prouiding such as serue for the sustenāce of man, but also for such as serue for the feeding of poore cattell, without which the ground can not be husbanded: therefore must hee sow pulse for the vse of man and beast, and Fodder in more aboundance for the sustenance of beasts. Amongst all sortes of Fodder, that is counted for the chief and the best, which the people of old time, and the Italians at this day call *Medica*, some call it Treefoile, the Frenchmen cal it *Grandtresle*, the Spaniards *Alfalfa*, others call it Burgādie grasse, because it was brought in by the Burgundians, it is now also come into Germanie, and there called *Welsholken*, in Greeke μηδικη. *Plinie*, writeth that it was brought by the Romanes out of *Media* into *Italy*, differing almost nothing frō Tryfolly or Threeleaued grasse: but that it is greater, higher, and ranker, for in stalke, leafe, and flowre it is all one, it groweth altogether bushing in leaues. In the toppe of the stalke it putteth foorth short coddes, writhen like hornes indented about, and hauing as it were little prickles, wherein is the seede shaped lyke a Moone, and growing to the Codde in

Fodder for cattell.

Medica.

bignesse as the lentill: which being chawed, tasteth like Pease: euery Codde hath his seede, it requireth a fatte ground without stones, full of iuice and rich: in many places it commeth not vp, in others it springeth very thicke. *Varro* giueth charge, that it be not sowed in too dry a ground or tickle, but in good and well seasoned. *Plinie* would haue the ground be drie and very rich. *Columella* biddeth, that the field where this *Medica* shalbe sowed, should be broken vp about October, and so to lie mellowing all the winter, and then to stirre it in Februarie, and the stones cast out, to harrow it well, and after in March to order it garden wise, casting it into bedes, euery bed ten foot broad, and fiftie in length, so that they may be easily watred, and of euery side well weeded: then laying on good old doung, let it lie till Aprill, and at the end of Aprill sowe it in such proportion, as euery handfull of seed may occupie fiue foote in breadth, and ten in length, and couer the seed out of hand, raking them with woodded rakes, for the Sunne will soone burne them. After it is sowen, that it come vp an inch in heyght, you must beware you touch not the ground with any yron instrument, but eyther with your fingers, or with Rakes of wood, weede it well from all other noysome things, otherwise it will grow wild and turne to pasture. Let the first harueſt be long deferred, to the end he may somewhat shed his seeds: at other times you may mow it as soone as you will, and giue it to your Cattell. Such as are skilfull in husbandrie, do say, that if you mingle Dates with the seed of *Medica*, and sow them, they will cause them to stock very wel: it is sowed in April or later, in May, to scape the frosts, and the seed is cast in like sorts as wheat is. When it beginneth to branch, all other weedes must bee weeded away, and being this ordered, you may mowe it fiue times a yeere. It flowreth fiue times, or at the least fiue times, so it be not cut. When you haue mowed it, water it well, and as it springeth, weede it againe. And thus as I said, you may mow it fiue times a yeere, and it shall thus continue ten yeeres together, it enricheth the ground, all poore and feeble cattell, are soone brought vp with it, it likewise healeth cattell that are diseased, but when it first springeth, till cattell be acquainted with it you must giue them but little at once, least the strangnesse of the foode hurt them, for it maketh them to swell, and breedeth

great

great aboundance of blood. *Columella* wryteth, that one acre of it will well find three Horses a yeere. In some Countries this hearbe doth grow in great plentie in euery Meddow, eyther of the nature of the ground, or thorough the disposition of the Heauens, and sometime the relicks of that which hath bene long agoe sowen, doth yeerely spring of the seede that falleth, and ouergrowen with Grasse and weedes, doth change into Meddow. I see no cause but that it may grow of it selfe, but that perhaps such Plantes as are brought out of straunge Countries require sowing and dressing, it is best to be mowed when it beginneth to flowre, for it must not be suffered to seed, whereby the Fodder shall be the better: which being wel laid vp, wil continue in goodnesse three yeeres, to the great profite of the grasier, for as I haue sayd before, there can be no better fodder deuised for cattell, wherewith they will better feed, and sooner rise. The next in goodnesse to this *Medica* is *Cytisus*, wonderfully as *Plinie* writeth commended of *Aristomachus*, and as *Virgil* saith, a good fodder for Sheepe, and being drie, a delightfull food to Swine: it may be mooued sundry times in the yeere, to the great cõmoditie of the husband: a little whereof doth soone fat vp cattell, neither is there any other grasse that yeeldeth either more abundãce or better Milke, the most soueraine medicine for the sicknesse of cattell that may be: beside, the Philosophers promise, that Bees will neuer faile that haue this grasse growing neere them: therfore it is necessary to haue your ground stored with it, as the thing that best serueth for Poultrie and Cattell: the leaues and seedes are to be giuen to leane and drouping pullen: some call it *Telinen*, some Trefoile, some great Melilot, the Romans call it *Trifolumaius*, great trasle, it is a plant all hearye & whitish, as *Rhamnus* is, hauing branches halfe a yard long & more, whereupon groweth leaues like vnto Fenigreeke or Clauer but something lesse, hauing a rising creest in the middest of them. This plant was first found in the Iland *Cythno*, and frõ thence spread throughout the *Cyclads*, and so to *Greece*, whereby the store of cheese came to be great: neither is there any country at this day, where they may not haue great plenty (as *Columella* saith) of this shrub. In Italie it groweth about the enclosiars of Vineyards, it shrinketh neither for heat, cold, frost, nor snow: it requireth good ground, if the weather be very dry, it must be watred,

Cytisus.

and when it first ſpringes well harrowed after three yeeres, you may cut it downe and giue it your cattell. *Varro* would haue it ſowen in well ordred ground, as the ſeed of Colewoorts ſhould be, and after remooued & ſet a foote and a halfe a ſunder, or els to be ſet of the ſlips. The time of ſowing of *Cytiſus* is either in *Autume*, or in the ſpring, in ground well plowed and laid out in beddes: if you want the ſeed, you may take the ſlipe, ſo that you ſet them foure foote aſunder, and a bancke caſt about them with earth well dounged: you may alſo ſet them before September, when they will very well grow and abide the cold in Winter: it laſteth but three yeere. *Columella* hath two kindes of *Cytiſus*, one wild, the other of the garden. The wild doth with his claſpers feede very well: it windeth about, and killes his neighbours as the Iuie doth: it is found in Corneſields, ſpecially amongſt Barley, the flowre thereof is like the flowre of peaſe, the leafe if it be bruiſed, ſmelleth like rocket, and being champed in the mouth, it taſteth like Chiche, or Peaſe. There is an other kind of Fodder among the plantes, vnknowen to the old writers, very good to feed both cattell and poultrie. I know not whether it be knowne in other countries beſide Germany, the common people cal it Spurie, or Sperie: it hath a ſtalke a foote in height or more, buſhed foorth in many branches, it hath a white flowre without any leafe: the flowre endeth in little knops as Flaxe hath, conteyning in them a very little ſeed like Rape ſeed. They are much deceiued that take it for *Cytiſus*, when that (as *Dioſcorides* ſaith) hath leaues like Fenugreeke, and this is altogether without leaues: neither is the ſeed any thing like though the vſe be almoſt one. The beſt milke & Butter in Germany, commeth of this feeding: wherefore it is eſteemed almoſt as good as Barley, or other graine: the ſtrawe is better then any Hey: the chaffe feedeth as well as any graynes: the ſeed feedeth Pigeons and Poultrie in winter paſſing well: it is ſowed in ſandy and light grounds all the Sommer long, and ſome ſowe it in Spring time with Oates for the ſeed ſake: in *Autumne* and harueſt time it is ſowed to feed Cattell: it is profitable for huſbands that dwell in ſandy and grauelly countries, wherefore they ſhould neuer be without good ſtore of it, for Hens, Bees, Goates, Sheepe, oxen, and all kind of Cattell delight very much in it: now remaineth the ſowing of Flaxe and Hempe.

Sperie.

RIGO.

RIGO. I looke for it.

CONO. These, although they be not to be receiued in the number of Corne nor Pulse, Fodder nor Hearbes, yet is there great account to be made of them with the husbandmans things, without which no house can be furnished, nor man well apparelled: which being beaten to a softnesse, serueth for webs of linnen, and twisting of Cords: and more, of this so little a seede doth spring that, which (as *Plinie* saith) carrieth the whole world hether and thether, that bringeth Egipt to Italy, & carrieth vs from Cales to *Ostia* in seauen daies. *Linum* in Latine, in Greeke λινον, in Italian and Spanish *Lino*, in French *Dulin*, in Dutch almost like, sauing that they call the seede Lin, and the plant Flare, is a verie common hearbe, wherewith Women are set a worke: it hath a slender stalke, not much vnlyke to Spery, but that it groweth higher a little, and bigger, with narrow leaues, and long blew flowres in the top, which falling away, leaueth behind them litle round knops as big as a pease, wherein are enclosed yellow seedes: it delighteth in rich ground & somewhat moist, some sow it in barraine ground: after once plowing, it is sowed in the spring, and gathered in summer. In Gelderland and Gulicke, where ther is great store of it, they sow it about the beginning of May: ther are againe that obserue three seasons for the sowing of it, as the weather shall fall out, for it requireth raine & moysture: the ripenesse of it, is perceiued by the waring yellow, and swelling of the knops that hold the seed, being then plucked vp & made in litle bundels, it is dried in the sunne, the roots standing vpward, that the seed may fall out. Some vse againe to card off the knops with an yron combe, & drying them in the sunne to gather the seede. The bundels afterwards are layd in water heated with the Sunne, with some waight vppon them to keep them downe, the rinde waring loose, sheweth when they haue been steeped enough. Then the bundels vnlooſed and dryed in the sunne, are beaten with beetels, when as the vtter rind is pilled off, and combed & hacked vpon an yron combe: the more wrong it sufferreth, the better doth it proove: the towe is seuered from the flare, & appointed for his vse, so are they seuerally spon vpon the Distaffe, made vp in bottomes, and sent to the weauers, whereof are wouen webbes, to the great commoditie of all men. Last of all, the webbe Flaxe.

is

is laide out in the hot Sunne, and sprinckled with water, wherby it is brought to a passing whitenesse. It may be remembred, that not long since the women of Germanie knew no costlyer attyre. The best Flaxe that is at this day, is brought from Moscouia, *Liuonia*, and those Countries, far excelling ours in height & goodnesse. Except there be great encrease of it, & plenty in the countrey where you dwel. *Columella* would not haue you medle with the sowing of it, for it is most hurtfull to the ground, as *Virgil* hath noted.

Flaxe where it growes doth burne the feeld.
The like doth Oates and Poppey yeeld.

And therefore (but that women must haue some things to occupie their hands withall) it were more profite to sowe the ground with corne, and to buy lynnen abroad, especially if you weigh the hurt of your ground, & the charges of the making. Hempe, in Latine *Cannabis*, in Greeke κάνναβις, in Italian *Canabe*, in Spanish *Cannamo*, in French *Chanvra*, and in Dutch *Haueph*, is a plant of the Reedish kind, hauing a very strong sauour: it groweth with a single stalk, and many times to such a height, that it matcheth with indifferent trees: it is of great necessity for the vse of man, & serueth both for making of Canuas, & framing of Ropes: the stalk hath many knots, out of which proceedeth branches with narrow leaues indented and sharp. *Dioscorides* describeth both the wild Hempe, & the garden Hempe to haue leaues like the Ashe, hollow stalkes, a stinking sauour, and round seede. There are two kinds of it, the Male, that is without flowre, & beareth a seede of sundry colours: and the Female, that, to recompence her barrennesse, doth yeeld a white flowre, it is sowed in Gardens, Orchardes, or other good ground (as *Plinie* would haue it) after a Southwest winde, with vs it is sowen in the end of Aprill, for it can not away with cold, some sowe it at the rising of the star called the Berward, which is at the end of Februarie, or the beginning of March: it loueth rich ground wel dounged and watred, and deepe plowed: it is noughtie sowing of it in raynie weather, the thicker you sowe it, the tenderer it will be, and therefore many times it is sowen thrise, though some there be that appoint to euery foot square fiue seedes. The Female or firble Hempe is first pulled vp, afterward the Male, or the carle, when his seede is ripe, is plucked vp, and made vp in bundels,

Hemp.

laye

layd in the Sunne foꝛ three oꝛ foure daies, and after is caſt into the water, with weight laide vpon him foꝛ eight oꝛ ten daies, till he be ſufficiently watred, and as Flax, til the rinde ware looſe: then taken out, it is dꝛied with the Sunne, and after bꝛoken in the bꝛake, and then combed and hacked foꝛ Yarne and Ropes. Of Hemp, are made Cables, Coꝛdes, Nettes, and Sailes foꝛ ſhippes, garments foꝛ Labourers, Sherts, and ſheetes: the ſhales oꝛ ſtalkes ſerue foꝛ heating of ouens, oꝛ kindling of fiers.

RIGO. In the Countrey of Gulicke, and ſome partes of Fraunce, I remember I haue ſeene an hearbe planted of the comon people with great diligence, that ſerueth as they ſaid foꝛ Diars.

CONO. You ſay true, that hearb *Ceſar* in his Commentaries of the warres of Fraũce, calleth *Glaſtum*, in greeke λουτικιμεγο. in Italian *Gnado*, in Spaniſh *Paſtel*, in French with the common ſoꝛt *Gudum*, and *Gueſde*, in Dutch *Weyt*, the Diars doe vſe it, and with them it is greatly eſteemed, and great gaine ariſeth thereof vnto the people of Gelderland, Julies, and Turin, and diuers Countries els: the leaues as *Plinie* wꝛiteth, are like vnto Dock leaues. *Dioſcorides* wꝛiteth of two kindes, the wilde, and the Garden Woade, ſaying, that the Garden Woade which Diars vſe, haue leaues like Plantine, but ſomething thicker, and the wild, leaues like Lentil, with yellowe flowꝛes: with this hearbe *Ceſar* ſaith the people of Englande were wont to paint their faces and bodies, to ſeeme moꝛe terrible to their enemies: it requireth like ſowing and ſoile as Wheate doth: but it is a great ſoker of the ground, and much hurteth it: it would haue a very rich and a fatte ground, and well digged: foꝛ the ground were better to bee turned vp with ſpades then with Plowes foꝛ the ſowing of this plant, and it muſt be very well weeded. It is ſowed in Gelderland in Apꝛil, and after the comon peoples rule, in Eaſter weeke: at the firſt fallowing they marle the ground, after ſowe it: you muſt be very heedefull in the weeding of it. When it is growen a handfull hye and moꝛe, they ſuffer it not to flowꝛe, but with an inſtrument foꝛ the purpoſe, they cut it cloſe by the roote, waſh it, and carry it to the Mill, and ſuffering it to grow againe, they cut it thꝛee oꝛ foure times, and ſo leaue it to ſeede. The greene hearbe they grinde in Milles like appile milles, pꝛeſſing it til they get out al the iuce therof, then roule they it vp

Woade.

vp with their hands in roūd balles, and so lay it vpon boorded floors to be dried.

RIGO. You haue greatly delighted me, in describing vnto me the order of sowing of seedes without which, not onely the people of the Countrey, but also the Courtiar and Citizen are not able to liue: my desire is now to vnderstand the order of harueſt, ẏ countrey mans longe looked for time, and the reward of all his toile.

Harueſt. *CONO.* I will proceede in the accomplishing of your requeſt. When the corne is ripe, before it be scorched with the great heate of the sunne (which is most extreame at the rising of the lesser dogg) it is to be cut downe out of hand: for delay herein is daungerous. First, because that birdes, and other vermine will deuoure it: and againe, both the Graine and the Eare, the toppe and the strawe being brittle and ouer drie, will soone fall to the ground: if storme or tempeſt chaunce to arise, the greateſt part thereof wil to the groūd, and therefore it must not be lingred, but when it doth looke yellow in euery place, and before that the Graine be thorowe hard, when they come to looke reddishe, you must then haue it in, that it may rather ware in the Barne then in the Field. Experience teacheth, that if it be cutte downe in due time, the seede will growe in fulneſſe as it lyeth in the Barne: for the Moone increasing, the Corne growes greater: at the chaunge, you must gather such seede, as you would shoulde be leaſt faultie. *Varro* saith, that the beſt time for Harueſt, is betwixt the Sunne stay, and the Dogge daies: for the Corne they say, doth lie in the blade xv. daies, flowreth fifteene daies, and ripeth in fifteene daies. Amongeſt graine and pulse, the first that is to be gathered, is Rape seede. And because the seede, when the codde beginneth to ware yellowe, declareth ripeneſſe, it must be gathered out of hand: and ſithe the seede will easely ſkatter, it must bee layed either in plaine smooth places in the Feelde, or vpon Canualle: and if it be presently to be carried, the Wayne or Cart must be lined with sheetes leaſt with iogging and trotting of the carriage, the seede fall thorowe. You must take good heede as well heere, as in all other pulse, that you preuent the raine, for the raine falling the coddes doe open. As soone as your Rape seed is of, if the ground be plowed, you may sow Bucke, or Blanke as they call it: so ẏ of one peece of ground in one yere, you may make

Rape harueſt.

two

two haruests. Next vnto Rape haruest in these Countries, followeth the haruest of Winter Barley, which is to be dispatched before the seed (the Eare being ouer dried) do fall, for they haue not huskes to conteine them as wheat hath, and the eares being brittell, will soone fall: yet some thinke it best to let the Barley lie a while in the field whereby they thinke the Graine will ware the greater. Then followeth the Hempe haruest. But first (as I said before) the Fimble or the Female, is pulled, and is dried a while in the Sunne, then (bound vp in bundels) it is throwen into the water, and kept downe with some weight, that it swimme not aboue. After likewise the Male the seede declaring his ripenesse is pulde vp, and the seed beeing threashed out, it is cast into the water, till the stalke be soft: after, being dried in the Sunne, it is made vp in bundels to be knockt and shaled in Winter euenings. Rie is to be mowed in June or July, & after that, Wheate. No better rule, then before the Graine be hard, and when it hath changed coulour. An old Prouerbe (as *Plinie* saith) it is better to haue in haruest two dayes too soone, then three daies too late. In Rie there is not such feare in scattering as in Wheate, which as soone as it is ripe, will shedde with euery wind. Wherfore good heed must be taken, that you linger not with wheate after it is ripe: although *Plinie* affirmeth, that Wheat will haue greater yeeld when it standes long: but surely deferring of it is daungerous, as well for the deuouring of birds and vermine, as for shaetering and falling of the seed through stormes and weather: as the proofe was seene in the great windes that were in the yeere of our redemption, 1567. Then followeth the Haruest of Pease, Beanes, Tares, and Lentils, according as they are timely sowed, wherein you must take heed, as I warned you before in Rape seed, that they lie not abroad in the raine: for if they doe, they will open and loose their seed. Last of all commeth the Haruest of the other Sommer seed, as of Barley, Pannicle, Millet, & Oates. It is found by experience, that raine is good for Oates after they be downe: for it causeth them to swell and to be fuller, and to that end they are left in the field many times two or three weekes after they be downe.

Hemp haruest.

Rie & Wheat haruest.

The haruest of all other corne & pulse.

RIGO. What order haue you in your reaping?

CONO. There are diuers sortes of reaping, according to the maner of euery Countrie. Some with Sythes, which differ also as

Diuers sorts of reaping.

as the worke requires. In this Countrey wee vse three sortes of corne Sithes, for either we haue a Sithe like a Sickle, which holden in the right hand, they cut the strawe close by the ground, and haue in the left hand a long hooke, wherewith they pull together that, that they haue cut, and lay it in heaps: and in this sort Wheat and Rie, and such Graine as hath the sturdiest straw, is reaped. In other places as in *Iulis*, where the ground being very rich the corne groweth higher and rancker, there they hold their left hand full of Corne, and with the right hand with toothed Sickles they cut it, leauing the straw vnder their hands long, to helpe the ground withall. In other places they vse a greater Sithe with a long Swath, and fenced with a crooked frame of stickes, wherewith with both their hands they cut downe the Corne, & lay it in Swathes as they doe Grasse when they mowe it, and with that they mow the higher sortes of Corne, *Varro*, and *Columella*, and other, do tell of sundry other sorts of reaping. *Palladius* teacheth, beside the labour of men, a shorter way to be done with an Ore, that shall in short time cut downe all that groweth, which was woont to be vsed in Fraunce. The deuise was, a low kind of Carre with a couple of wheeles, and and the Frunt armed with sharpe sickles, which forced by the beast through the corne, did cut downe all before it. This tricke might be vsed in leuell and champion countries: but with vs it would make but ill fauoured worke. In reaping, you must regard to goe with the winde: for if you worke against the winde, it will be hurtfull as *Xenophon* saith) both to your eies and your hand. If the strawe be but short, you must goe neerer the ground, if it be long, you may put your Sickles to the middest to dispatch it the sooner, and to make it threshe the better: and the stubble vpon the ground must either according to *Virgils* rule be burnt, or rotte vpon the grouid for the bettering of the land. Some preserue that which is longest, to thatch Barnes, Stables, and Countery Cottages withal. And where Hay is scant, it serueth for foddring of Cattell: for Barley strawe is a food that Bullockes loue well, and beside, all kind of straw is good to litter withall. When the Corne is downe, it is presently to be bound in sheaues: all though Barley, Oates, and other Corne and Pulse is made vp in Coppes and Rickes, but not with out hurt and hazard. The Corne being cut, is not to be had into the barne presently,

ſently, but to be let dry, according to the nature of euery Graine and pulſe: for if it be carried in before it be through dry: it corrupteth and rotteth. Oates and Bucke, are longeſt left abroad, as alſo Lentiles, Peaſe and Pulſe: becauſe they are longeſt in drying. Wheat may ſooneſt be carried, if it be not mingled with too many weeds, that hinder the drying of it. When Haruеſt is in, the ground muſt out of hand be plowed, both to kill the weeds, and to make it the meeter for the next ſowing. The Corne cut downe and drie, is to be layd either in Barnes, Houels, or Stacks, and after in Winter to be trode out with beaſts, or threſhed out with Flailes, and to be cleanſed with Fans. Plowing after haruеſt.

RIGO. In Italy they vſe to tread out their Corne with cattell, the like reporteth *Zenophon* of the Greekes.

CONO. I haue ſeene it my ſelfe, where they rather take horſe then Oxen, and that time they alſo winnow their Corne, thinking the Southweſt wind to be beſt for that purpoſe: but to ſtay for that, *Columella* thinketh but the part of a ſmall huſband.

RIGO. I ſee you haue very large Barnes, what order obſerue you in the building of them?

CONO. You muſt ſo ſet your barne, that the corne may be wel brought into it, and ſee it be very cloſe on euery ſide, leauing open a ſpace for two doores, a fore doore and a backe doore, but ſo, as neyther of them open to the Weſt, but rather North and Eaſt, and at both ſides of the floore beſtow your corne in ſeueral taſſes & moows, ſo that you may eaſily come to euery one at your pleaſure. And though the corne be laide vpon battes in the floores, yet let there be a ſpace left in the middeſt, that may be open to the very top, that you may fetch what ſort you liſt to be threſhed. In ſome places they haue a Pully in the middeſt, wherewith they hoiſe vp the corne to the very rafters of the houſe. In Holland they haue few cloſe Barnes, but all houels and ſtacks, ſo placed with hanging rooffes vpon poſtes, that with pinnes and winches, they may heighten it, or let it downe as they liſt. The Barne.

RIGO. Thoſe kind of Barnes they ſay, are not ſo ſubiect to Miſe and Rattes, nor ſo chargeable as the other.

CONO. Howſoeuer the Barne bee, you muſt place it as hie as you may, leaſt the Corne be ſpoyled with moyſture or damps, ſome

some thinke it better for them to be thatched then tyled, the largenesse must be according to the greatnes of your occupying. Some to the end Cats and Weesels may the better come by, they do vaut the flowre with bricks, and laying rafters thereon do lay on their Corne. The flowre must be fayre and smooth made, so as the corne may be wel threshed or troden out. *Columella* would haue the floore fayre paued with Flint or stone, whereby the Corne will the sooner be threshed, and the floore, not hurt with beating and trampling of Oxen, and when it is fand or winnowed, it will not be full of grauell and durt, as the earthen floores yeeld. But we content our selues with our earthen floores, well made and of good earth, mixed with a little Chaffe, and the grounds of oyle, for this preserueth the Corne from mise and Emets. You must make it very euen and leauell, and after it is mingled with Chaffe, let it be well troden, and so suffered to drie. You must keepe also from it beastes and Poultry, which with trampling and scraping will make it rugged and vneeuen. When the floore is dry, the corne laid on it, is beaten out with Flailes and cleansed with Fans, though in some place they rather like to tread it out with Oxen, and to winnow it after the old fashion with the winde.

RIGO. Well sir, when you haue thus threshed your Corne, what waies haue you to keepe it from wiuels?

Garners. *CONO.* The Garners, or Corne lofts, wherein your Corne thus threshed and cleansed shall be layde, must stand hie, that they may be blowen through with the Easterne and Northerne winds, to which no moysture from the places adioyning must be suffered to come, for the quarters of the heauen that are coldest and driest, doe both preserue corne the longest. In Spaine and *Apulia* being hot Countries, the wind is not onely let in on the sides by windowes, but also at the bottome by grates. Some againe preserues it in vaults vnder the ground, where the dry earth doth cherish such fruits as she hath brought forth, vsed as *Varro* saith, in Spaine and Carthage: and in our daies we vse to keepe both Wine and Grayne in such vaultes. In countries that are very wet and watrish, it is better to make them in Garrets as hie as may be, hauing good regard that it be wel walled and flowred. Moreouer, where as Corne is subiect to Wiuels and Vermine, except it be very safely layd vp, it wil

soone

soone be consumed: therefore you must make with Clay mingled in stead of strawe with heare, then ouercall it within and without with white Potters Clay, last of all, steepe the rootes and leaues of Wilde Cucumbers in water two dayes, and with that Water, and Lime, and Sande, make plaister, and washe therewithall the walles within: albeit *Plinie* counteth Lime as hurtfull a thing as may be for Corne. Some mingle with Lime the vine of Cattell, as a thing that will destroy Wyuels, or the leaues of Houseleeke, of Wormewood, or Hoppes: but specially if you haue it, there is nothing so good to destroy all such Vermine, as the dregs and bottome of Oyle: some vse in the stead thereof, the pickle of Herrings. Hauing in this sort ordered their seelings, and their floores beyng dryed, they suppose that no hurtfull woorme shall annoy what so euer Corne they lay in them. Some lay vnder their corne, Fleewort: others thinke it an assured remedy, if they be often fanned and winnowed, and thereby cooled: but *Columella* thinkes it vntrue, and that by this meanes the Vermine shall not onely be not driuen out, but they shalbe dispearsed throughout all the corne, which if they otherwise be left alone, will meddle with no more then the outward parts, for a hand breedth depth within, there neuer breedes any Wyuels, and therfore he thinks it better to let that alone that is already corrupted, and will goe no further, then with farther medling to marre all: for it is an easie matter when so euer ye need to occupy it, to take away that is tainted, and to vse the rest. But for al this, experience teacheth vs, that there is not so good a remedy to destroy the Wyuel, as is the often fanning and winnowing in Summer. After the first two yeeres, they hold opinion they will not meddle with corne: but I weary you with carrying you too much about, and if it please you, we will returne home.

Against breeding of wyuels

RIGO. If it be for your ease so to do: otherwise there can be no greater pleasure to me, then walking abroad to heare you talke of husbandry. Are these that I see your Pastures, where your fatte Oxen, and your Mares, and your Colts goe leaping.

Of pasture & medow.

CONO. They are so, I lay all my pastures seuerall, for euery kind of Cattell to be by himselfe: in the hithermost that you see, are my Cattell that I facte: in the next are my Horses, my Mares, and my Colts: in the next are my yoong breede. Yeerelings, and Two-

yeerelings. The Meddowes that you see in yonder Valley, lie all to be mowen. Hese next to my house, are my Sucklinges, that are brought vnto their dams to sucke thrise a day, and therefore ought to be neare: howbeit, such as feed farre off, must diligently and daily be looked to, for feare of diseases.

RIGO. Since I haue troubled you this far, I cannot leaue till I vnderstand all your orders.

CONO. No trouble at all to me, but rather as I said before, the recording hereof, is my great ioy: for in talking of these matters you bring me a bed.

RIGO. I pray you then take the paines to describe me the ordering of Pastures and Meddowes, when as there seemeth to be a great affinitie betwixt them and Corne ground, and because they are sometimes also to be plowed, me thinketh this part remaineth to be spoken of.

CONO. With all my hart, I will satisfie your desire in as much as I am able: and in deed since I haue all this while spoken of Corne ground it is not out of order to tell you my minde of Pasture: and although *Cato* in some places doth giue the preeminence to the Vineyard, yet other old writers doe most of all preferre Pastures, as the ground that requireth least a doe about it: and therefore they were called as *Varro* saith, *Prata*, because they were *Parata*, alway in readines & needed neither great charge nor labour, nor are in danger of storme or tempests, as other kind of ground is, except such parcels as lie neare riuers and Ilands, which are sometimes ouerflowed: and that discommoditie is sufficiently recompenced with the fatnesse that the water leaues behind it, which enricheth the ground, and makes it the better yeerely to yeeld his gayne eyther in Pasture or Meddow. The Pastures with vs doe commonly serue both for Pasture or Meddow when wee list, specially in such places where the ground is rich and drie, which they had rather to employ to Pasture, because with dounging of cattell, it waxeth alwaies the better, whereas with continuall bearing of hey, it hath growen to be mossie and nought: but where the ground is alwaies wet and watrish, there it is better to let it lie for Meddow. *Columella* maketh two kinds of Pasture ground: whereof one is alwaies drie, the other ouerflowed. The good and riche ground

hath no need of ouerflowing, the Hey being much better that groweth of the ſelfe goodneſſe of the ground, then that which is forced by waters: which ſometime notwithſtanding is needful, if the barrenneſſe of the ground requireth it: for in bad and naughtie ground, good Meddow may bee made, if it lie to bee ouerflowen: but then muſt the ground neyther lie hollow, nor in hils, leaſt the one of them keepe the waters vpon it to long, and the other preſently let it foorth againe. Therefore lyeth the ground beſt, that lieth leueleſt, which ſuffereth not the water to remaine very long, nor auoideth it too ſoone. If in ſuch ground it chaunce to ſtand ouerlong, it may be auoided with water ſtreame at your pleaſure: for both ouerplus, and the want of water are alike hurtfull vnto Meddowes. It is very handſome, where dry and barraine ground lieth ſo by the riuer, as the water may be let in by trenches when you liſt: in fine, the occupying of Paſture grounds require more care then trauaile. Firſt, that we ſuffer not Buſhes, Thornes, nor great weedes, to ouergrow them, but to deſtroy ſome of them, as Brambles, Briers, Bulruſhes, and Sedges in the end of Sommer, and the other that bee Sommer weedes, as Sowthyſtell, and all other Thyſtels, in the ſpring. You muſt take heed of Swyne, that ſpoyle and turne vp the ground il fauouredly, and all other Cattell: except it bee in hard and dry weather, for otherwiſe they gult and marre the ground with the deepe ſincking of their feete treading in the Graſſe, and breaking of the Rootes. The badde and barrayne grounds are to bee helped with doung in winter, ſpecially in Februarie, the Moone encreaſing, and the ſtones, ſtickes, and ſuch baggage as lye ſcattered abroad, are to be throwne out ſooner, or later as the ground is. There are ſome Meddowes that with long lying, are ouergrowen with moſſe, which the olde husbands were woont to remedy with caſting of certaine ſeedes abroad, with laying on of doung, ſpecially Pigions doung: but nothing is ſo good for this purpoſe, as often to caſt Aſhes vpon it, for that deſtroyeth moſſe out of hand. Notwithſtanding theſe are but troubleſome remedies. The beſt and certaineſt is to Plowe it: for the ground after his long reſt, will beare goodly corne. But after you haue plowed it, it wil ſcarſe recouer his old eſtate again for paſture or Meddow in three or foure yeers. When you meane to let your ground lie againe for meddow

or Pasture, your best is to sowe it with Dates, and to Harrow the ground euen and leuell, and to hurle out all the stones and such things as may hurt the Sythe: for Dates is a great breeder of grasse. Some doe cast Heyseede, gathered from the Heyloft or the rackes, ouer the ground before they harrow it. Others againe, when their Meddowes haue lien long, sowe Beanes vpon them, or Rape seede, or Millet, and the yeere after Wheate: and the third yeere they let them lie againe for Meddow or Pasture. You must beware, that while the ground is loose and soft, you let not in the water, for the force of the water will wash away the earth from the rootes of the Grasse, and will not suffer them to grow together: neither must you (for the lyke daunger) suffer Cattell to come vpon it, except in the second yeere Goates, or Sheepe, or such like, after you haue mowed it, and that if the season be very drie. The third yeere you may put on your greater sorte of Cattell agayne, and if the ground be hilly and barraine, you may doung the highest part of it in February, as I said before, casting on it some Hey seed, for the higher part being mended, the raine or water that comes to it, will carrie downe some part of the richnesse to the bottome, as I said before, when I spake of the manuring of earable ground. But if you will lay in new ground for Meddowe, and that you may haue your choyse, take such as is riche, dewy, leuell, or a little hanging, or choose such a valley, where the water can neyther lye long, nor runne away to fast: neyther is the rancke Grasse alwayes a signe of good ground: for what goodlier Grasse is there saith *Plinie*, then is in Germanie, and yet you shall there haue sand within a little of the vpper part. Neither is it alway a watry ground where the Grasse growes hie, for the very Mountaynes in Sycherland yeeld great and hie grasse for Cattell. The Pastures that lies by the Lakes of Dumone in Austry and Hungarie are but slender, nor about the Rhine, specially at his falling into the Sea about Holland, as likewise in Friseland and Flaunders. *Cæsar Vopiscus*, the Fieldes of *Rascius* were the principall of Italy, where the Grasse would so soone grow, as it would hide a staffe in a day. You may make good Meddow of any ground, so it may be watred. Your Meddowes are to be purged in September and October, and to be rid of all bushes, brambles, and great foule woodes, and all things else

that

that annoy them, then after that it hath often bene ſtirred, and with many times plowing made fine, the ſtones caſt away, and the clods in euery place broken, you muſt doung it well with freſh doung, the Moone encreaſing. Let them be kept from gulling and trampling of Cattell. The mouldhils and doungings of horſe and bullockes, muſt with your ſpade be caſt abroad, which if they remaine, would either be harberours of Ants and ſuch like Vermine, or elſe breeders of hurtful and vnprofitable weeds, your Meddowes muſt be layd in towards March, and kept from Cattell. & made very cleane: if they be not rich, they muſt be mended with doung, which muſt be laid on, the Moone encreaſing, and the newer the doung be, the better it is, and the more Graſſe it makes: which muſt be laid vpon the toppe of the higheſt of the ground, that the goodneſſe may runne to the bottome. The beſt hearbe for Paſture or Meddow, is the Trefoile or Clauer: the next is ſweet Graſſe: the worſt as *Plinie* ſaith, is Riſhes, Fearne, and Horſetaile.

RIGO. How ſhall I know when the Graſſe is ripe, and ready to be cut?

CONO. The time of cutting of it, is when the Bent begin-neth to fade and waxe ſtiffe, and before it wither. *Cato* bids not to mow your Graſſe with the lateſt, but before the ſeed be ripe. It is beſt cut downe before it wither, whereby you ſhall haue both more, and better Hey of it, Some, where they may ouerflow it, do water it a day before they cut it, it cutteth better after a dewie euening.

RIGO. Do you cut graſſe in the lyke ſort as you do Corne?

CONO. Almoſt in the like ſort, ſome doe vſe ſhort ſithes, mow-ing it with one hand: but we here do vſe the common great Sith, mowing with both our hands, as I ſaid before, that Oates, and Barley, and ſuch other lyke Corne was mowed, with ſithes wee vſe to ſharpe with Whetſtones, or inſtruments of wood dreſſed with ſande. The Graſſe being cut, muſt bee well tedded and tur-ned in the Sommer, and not cocked till it be drie: and if it chaunce to be wette with raine, it muſt not be turned, till the vpper part be dried. There is a meaſure to be vſed in making of it, that it bee not had in to drie, nor too greene. The one ſort, if the iuice be dried vp, ſerueth onely for litter: the other (too greene and moiſt) if it be carried into the Loft, rotteth, and the vapour being ouer heated,

falleth on fire and burneth. And if so be the raine chance to fal vpon the grasse that is new cut downe, if it be not stirred, it takes not so much harme: but if it be once turned, you must still be sturring of it, otherwise it will rot. Therefore the vppermost part before it be turned, must be well dried with the Sunne and the winde: when it is dried, we lay it in windrowes, and then make it vp in Cocks, and after that in Mowes, which must be sharpe and piked in the toppe, the better to defend it from the raine which if it do not fall, yet is it good so to do, that they may sweat in the said mowes, and digest whatsoeuer moistures is in it. And therefore good husbands do not lay it vp in their lofts, till such time as it hath sweat in the Field. Grasse is commonly mowed twise a yeere, in May or June, and againe after Haruest: the first mowing is counted the best. As soone as the Hey is of after the first mowing, it would be ouerflowed (if you may conueniently) to the end the after swath may be mowed in *Autume*, which they call in Latine *Cordum*. In the Dukedome of *Spoleto*, it is said they Mow foure times a yeere, being drie ground, and diuers other places thrise a yeere. *Medica* may be cutte fiue times a yeere, if it be ordered as it ought to be. It is best mowed when it beginneth to flowre, for it must not growe to seede: beyng dried, it is made vp in bundels, & kept good three yeeres, to the great comfort of poore Cattell: but because I haue told you of *Medica* before, it is but vaine to rehearse it againe.

RIGO. You haue spoken of a very large and great knowledge of husbandry, which out of doubt requireth in a man great trauaile and diligence.

CONO. It requireth indeed great diligẽce and trauaile, howbeit, it recompenceth the paines and the charges not without great gaines, whereof *Plinie* bringeth for example *Caius Crasinus*, who when vpon a litle peece of ground he reaped more fruit and graines a great deale, then his neighbours did vpon their great occupiers, grew into great hatred amongst them, as though they had bewitched their field: whereof being accused by *Spurius Albinus*, and fearing to be condemned, when the Queest should passe vpon him, hee brings al his instrumẽts of husbandry into the common place, and brought in therewithall his daughter, a tolly great roile, his iron tooles perfectly well made, great spades, mightie Coulters, & lustie Cattell:

Tattell: Loe here (quoth he) mine enchauntments, neither can I bring before you my great and painful labours, watchings, & sweat, where vpon he was presently quite by the voices of them all. But I keepe you too long about my husbandry, it is good time we leaue and go home. The diligence of Caius Cæsinus.

RIGO. With a good will. If I may obtaine one thing at your hands, which when you haue made an end with, I will trouble you no longer.

CONO. What is that?

RIGO. If a man would buie a Farme or a Mānor, in what sort shall he best do it? for I doubt not but you haue good skill in such matters.

CONO. Ischomachus in *Xenophon*, telleth, that his father taught him that he should neuer buie a peece of ground, that had bene skilfully or curiously husbanded before, but rather such ground as by the slouthfulnesse and pouerty of the master, hath lyen vntilled and neglected, and yet seeme to be very good ground: as it is better to buie a leane Horse, so that he be not old, and that he haue the tokens of a good Horse, then a fatte Horse, and one that is curiously kept. A well ordered peece of land is held deere, and yeeldes no great encrease, and therefore is neyther so pleasant nor so profitable, as that which by good husbandrie may be made better. *Cato* would haue two thinges to bee obserued in bying of land, the goodnesse of the ground, and the holsomnesse of the aire: of which two, if either be lacking, whosoeuer doth buie it he iudgeth him mad, and meet to be sent to Bedlam: for none that is well in his wittes, will bestow cost vpon barraine ground, nor hazard him selfe for a little rich ground, to be alwaies subiect to pestilentiall diseases: for where a man must deale with the Diuell, there is not onely his commoditie, but his life doubtful, & rather his death then his gaine certaine. After these two principall notes, as *Columella* saith, *Cato* added of like weight these three that follow to be regarded: ỹ Way, the Water, & the Neighbour. The goodnesse of the way is a great matter, for it both makes the master haue a delight to go about it, & it is cōmodious for carriage, which bringeth great gaine, and little charges. Of the cōmoditie of water who doubteth, without whose vse no man is able to liue. Of a mans neighbour, hee would haue a

man haue speciall regard *Hesiodus* saith, κακος γειτων, an euill neighbour is a great mischiefe. I haue knowne diuers, that for the troublesomnesse of their neighbour, haue forsaken good dwellings, and changed gold for copper, because they haue had false knaues to their neighbours, and quarrelers, that suffering their cattell to run at large in euery mans ground to spoile their Corne and their Vines, would also cut downe wood, and take whatsoeuer they finde, alwaies brabling about the bounds of their ground, that a man could neuer bee in quiet for them: or else haue dwelt by some Caterpiller Ruffian or swash buckler, that would leaue no kind of mischiefe vndone. Amongst all which commonly there is not so il a neighbour, as the new vpstart, that takes vpon him the name of a Gentleman, who though you vse him neuer so well, will at one time or other giue you to vnderstand from whence he comes, and make you sing with *Claudian*.

Asperius nihil est humili cum surgit in altum.
A lewder wretch there liues not vnder skie.
The Clowne that climes from base estate to hie.

As the Prouerbe in England is, set a Knaue on horseback, & you shall see him shoulder a Knight: for an Ape will be an Ape, though you cloth him in purple, Surely *M. Portius* would haue a man shun the neighborhood of such, as the pestilence. I for my part am happy in this point, that I haue no neighbor that I need to feare.

RIGO. Perhaps they dare not for your authoritie to doe, as otherwise they would.

CONO. But since death and other casualties rids a man of them, the dwelling is not to be left, if it haue other good commodities, except it be places in the borders of sundry Countries that be subiect to great sicknesses. Some commend the dwelling that hath faire waies about it, is neere some riuer or good market, whereby a man may carry his marchādize with lesse charges. The old fellows would neuer haue a man place himselfe neere the hie way, for pilfering of such as passe by, and troublesomnesse of ghests, as I said before in speaking of the placing of an house. In ỳ letting of a Farme, these thinges are to be obserued that I spake of before, in describing of a Bailiffe of husbandry and his labour: that you let it to such, whose trauaile and good behauiour you may be assured of, and

The letting of a farme.

that

that you regard more their good ordring of the land then the rent, which is leaſt hurtfull, & moſt gaynefull. For where as the ground is well huſbanded, you ſhall commonly haue gayne, and neuer loſſe, except by vnreaſonableneſſe of the weather, which ỳ Ciuil Lawier ſaith ſhould not be any damage of the Tenant, or the inuaſion of the enimie, where the Tenant can not helpe it. Beſides, the Lord muſt not deale with his Tenant ſo ſtraightly in euery point, as by law he might, for his rent dayes, bargaynes of wood, quitrents, or ſuch, therigour wherin is more troubleſom, then beneficial: neither ought wee to take euery aduantage, for law many times is right plaine wrong: neither muſt ye be to ſlacke on the other ſide, for too much gentleneſſe many times makes a man the worſe. And therefore it is good if the Farmer be ſlack in his paiments, to make him to know it: but in no wiſe to be a raiſer or enhaunſer of rents, for that diſcomforts, and many times vndoeth the tenant. Moreouer, you muſt not lightly change the old Farmer, both becauſe of his deſerts, and that he is better acquainted with the ground then a new. *L. Voluſius* would alwaies ſay, that he was in beſt caſe for his lands, that had alwaies his Tenants borne and bred vp in them, whereby the long familiaritie ſhould make them more louingly to vſe them ſelues: for ſure it is an euill vſe often to change tenants, and therefore I doe like well that order, where the land is let for the liues of the Tenant, his wife, and his Childe, paying a yeerely rent, ſo that as long as he paies his rent, and keepes the reparations, it ſhall not be lawfull to deceiue him: for hereby the Tenant ſhall be prouoked to order the ground with more diligence, to repaire the houſe, and to looke to it in all points as to his owne, beſtowing many times as much as he hath vpon it. This way of letting land me ſeemes is beſt, where the ground is ſubiect to the Sea or the Riuer, or other danger, that the Tenant be charged with the maintenaunce of it. And heere be ſure that you let it rather to one of habilitie, then to an vnthriftie man, that is not able to beare it, wherby you may looſe both your land and your rent. In ſuch place as lies neere the Lord, he may occupie it by his bayliffe, or to hawues: but where it is far off, it is better to let it out for a yeerely rent vpon the foreſaid couenants. For if you occupie it with your ſeruants, they will either looke ill to your cattel, or your ground, or

ſuffer

suffer thinds to be stolne, or steale them selues, or make you be at more charges then needeth, & be careless in euery thing. In letting of ground commonly it is couenanted, that the tenant shall not let nor sell without leaue of the Lord, and that he shall not breake any pasture or meddow land, and what, & how much he shal sow of euery kinde of grayne, how much he shall haue for Pasture, how much he shall let lie, and how much he shall mend. Heere haue you almost as much as I am able to say in husbanding of the ground.

RIGO. I thanke you, you haue greatly delighted mee with the describing of your Pasture ground and Earable.

The end of the first booke.

The second booke, of Gardens, Orchardes, and Woodes.

Thrasybulus. Marius. Iulia.

BEcause of the aliance betwirt hearbes, trees, and corne, and because their husbandry is almost one, it is reason that next to the first booke, written of Earable ground and Tillage, should follow the description of Orchards, Gardens, and their fruites, *Virgill* in writing of husbandry, left this part vnwritten of: howbeit, diuers others both old & new writers haue not without some diligence written of this part, but yet by snatches (as it were) & not throughly: whose opinions ioyned with mine owne experience, it seemeth good to me in this book to declare. And since the vse of orchards and gardens is great and ancient, and that *Homer* writeth, how *Laertes* the old man, was woont with his trauaile in his Orchardes, to driue from his mind the sorow he tooke for the absence of his sonne. And *Xenophon* reporteth, that king *Cyrus*, as great a prince as he was, would plant with his own hands, & set trees in his orchards, in such order, as it seemed an earthly paradise. *Q. Curtius* writeth of *Abdolominus*, that

The vse of Gardens of great antiquitie.

that for his great vertue, of a poore gardner, came to be king of the *Sidonians*. And surely, not vnworthily is this part of husbandry esteemed, seeing it doth not al onely bring great pleasure, but also is greatly profitable for the maintenance of household, and the sparing of charges, ministring to the husband dayly foode and sufficient sustenance without cost. For when (as *Columella* saith) in the olde time the people liued more temperately, & the poore at more libertie fed of flesh and milke, and such things as the ground and foldes yeelded, but in the latter age when ryot and daintinesse began to come in, and the wealthier sort to esteeme no fare but costly, and farre fetched, not content with meane diet, but coueting such things as were of greatest price, the poore people as not able to beare the charges, were banished from the costlier cates, and driuen to content themselues with the basest foode. And hereof sprang at the first the planting of Orchards, and making of Gardens, wherewith the poorest creature that was, might store his Kitchin, and haue his victuals alwaies at hand, the Orchard and Garden seruing for his Shambles, with a great deale more commendable & hurtlesse diet. Herein were the olde husbands very carefull, and vsed, alwaies to iudge, that where they found the garden out of order, the wife of the house (for vnto her belonged the charge thereof) was no good huswife, for they should be forced to haue their victuals frō the Shambles or the Market, not making so great account of Colworts then, as they do now, condemning them for the charges that were about them. As for flesh, it was rather lothed then vsed amongst them. Only Orchards and Gardens did chiefely please them, because the fruites that they yeelde, needed no fire for the dressing of them, but spared wood, being alwaies of themselues redy dressed, easie of digestion, and nothing burdensome to the stomacke: and some of them seruing also to pouder or preserue withall, as good marchandize at home, as *Pliny* saith, not driuing men to seeke pepper as farre as Indie. Of *Lucrin*, & the Oysters not regarde, as the Poet sayth. And therefore to make them of more worthinesse, and that for their common profite, they should not be the lesse regarded, there were diuers noble men of the house of *Valerius*, that tooke their surnames of Lettuse, and were not ashamed to be named Lettisimen. The old people had in great estimation ẏ Gardens of ẏ daughters of *Adas*, &

An euill Garden token of an ill huswife.

Or Lettusins.

of

of the kings *Adonis*, and *Alcinoi*, of whom *Homer* so much speaketh, as also the great vaulted Gardens, either built by *Semiramis* or by *Cyrus* the king of *Assiria*. *Epicure* is reported to be the first that euer deuised garden in Athens, before his time it was not seene, that the pleasures of the Countrey were had in the Citie. Now when *Thrasybulus* trauailing in the affaires of his prince, chaunced to come to the house of *Marius*, and carried by him into a garden that he had, which was very beautiful, being led about among the sweet smelling flowres, and vnder the pleasant Herbers, what a goodly sight (quoth *Thrasybulus* is here? how excellently haue you garnished this paradise of yours with all kind of pleasures? Your Parlers, & your banketting houses both within and without, as all bedecked with pictures of beautifull Flowers and Trees, that you may not onely feede your eyes with the beholding of the true and liuely Flower, but also delight your selfe with the counterfait in the midst of winter, seeing in the one, the painted flower to contend in beauty with the very flower: in the other, the wonderfull worke of Nature, and in both, the passing goodnesse of GOD. Moreouer, your pleasant Herbers to walke in, whose shaddowes keepe off the heate of the sunne, and if it fortune to Raine, the cloisters are hard by. But specially this little riuer with most cleare water, encompassing the garden, doth wonderfully set it forth, & here withal the greene & goodly quickset hedges, noe chargeable kind of enclosures, differeth it both from Man and Beast. I speake nothing of the well ordered quarters, whereas the Herbes and Trees are seuered euery sort in their due place, the Pot hearbs by themselues, the flowers in an other place, the Trees & Impes in an other quarter, all in iust square and proportion, with Alleis & walkes amongst them. Among these goodly sights, I pray you remember according to your promise (for so the time requireth) to shew me some part of your great knowledg in garden matters, sith you haue vpon this condition heard me heretofore grabling, or rather werying you with the declaiming of my poore skill in the tilling of the field.

MARIVS. Your memory is herein a little too quicke, but what shal I do? Promise must be kept, and since you wil needs force me, you shall heare me babble as well as I can, of my knowledge in Gardening: but not with the like pleasure that I heard you talk-

talking, of your grayſing and your ground.

THRA. Yes truely, with as great pleaſure and deſire as may be.

MARIVS. Come on then, let vs here ſitte downe in this Herber, and we will now and then riſe and walke, reſting vs as oft as you will: in the meane time *IVLIA* ſhall make ready our ſupper. And firſt, euen as you began with the chooſing of a place (meete to ſet your houſe vpon, ſo muſt I with the choiſe of a Plot meete for a garden. The ordering of gardens is diuers, for ſome are made by the Manor houſes, ſome in the Suburbes, ſome in the Citie where ſo euer they be, if the place will ſuffer, they muſt be made as neare to the houſe as may be: but ſo, as they be as farre from the Barnes as you can, for the Chaffe or duſt blowing into them, and either ſubiect to the Dounge heape, whereby it may be made riche, or els in ſome very good ground that hath ſome ſmall Brooke running by it, or if it haue none ſuch, ſome Well or Condite, whereby it may be watered. An excellent plot for the purpoſe is that which declineth a little, and hath certaine gutters of water running through diuers parts thereof: for gardens muſt alwaies be to be eaſily watered, if not with ſome running ſtreame, ſome pumpe to be made, or kettle, Will, or ſuch like, as may ſerue the turne of a naturall ſtreame. *Columella* would haue you make your ſearch for water, when the Sunne is in the latter part of *Virgo*, which is in September, before his entrance into the Winter *Aequinoctiall*, for then may you beſt vnderſtand the ſtrength or goodneſſe of the ſprings, when after the great burning heat of the Sommer, the ground hath a long while continued without raine. If you cannot thus haue water, you muſt make ſome ſtanding Pond at the vpper part of the ground, that may receyue and containe ſuch water as falles from aboue, wherewith yee may water your Garden in the extreame heat of the Sommer: but where neither the nature of the ſoyle, nor conueyance by Conduit or Pumpe, or running ſtreame is to be had, you haue no other helpe but the raine water of Winter, which if you alſo haue not, then muſt you delue and lay your Garden three or foure foot deepe: which being ſo ordered, will well be able to abide what ſo euer drought do happē. This is alſo to be regarded, that in gardens that are deſtitute of water, you ſo order them into ſeuerall parts, that what

The time of ſearching for water.

what part you will occupie in Winter, may lie toward the South, and that which shall serue you for Sommer, may lie towardes the North. In a Garden, as in the choise of Corne ground, you must looke whether the goodnesse of the ground be not hindered by the vnskilfulnesse of him that hath occupied it. You must also make choise of your waters, of which the best (as *Plinie* saith) are the coldest, and such as be sweete to drinke: the woorst that comes from Ponds, or is brought in by trenches, because they bring with them the seedes of grasse and weedes: but the ground doth most delight in raine water, which killeth woormes and baggage that breeds in in it: but for some hearbes, salt water is needfull, as the Raddish, Beete, Rew, Saurell, to which all salt water they say, is a speciall helper, making them both pleasant and fruitful: to all others, sweet water is onely to be vsed. And because I haue begun to entreat of watring, I must giue this note, that the times of watring is not in the heat of the day but earely in the morning, and at night, least the water be heated with the Sunne: onely Basill you must water at noone, the seed something wil come the sooner vp, if they be sprinkled at the first with hot water. You haue here heard, that the first needfull thing for a Garden, is water. The nert to that is enclosure, that it be well enclosed, both from vnruly folks and theeues, & likewise from beasts: least lying in waite for your hearbs & your fruits, they may both bereaue you of your paines, and your pleasure: for if eyther they be bitten with beastes, or to often handeled with men, it hindreth them both of their grouth and seeding: and therefore it is of necessitie to haue the Garden well enclosed. Now for enclosures, there are sundry kinds, some making earth in mould do counterfeite Brickwals: Others make them of lime and stones: some others of stones layd one vpon an other in heapes, casting a ditch for Water round aboute them, which kinde *Palladius* forbids to follow, because it will drawe out the moisture from the Garden, except it be in marish ground. Other make their fence with the seedes and sets of Thorne: some make them of mudde walles couered with strawe or heath. *Varro* maketh mention of foure kindes of enclosure, the first naturall, the second Wild, the third souldierly, the fourth, of carpenters worke. The first and naturall is the quickeset hedge, being set of young Thornes, which once well

The time of watering of Gardens.

Enclosing of Gardens.

growen, regardeth neither fire nor other hurt. The second is the common hedge made of dead wood, well staked and thicke plashed, or railde. The third the souldiers fortifieng, is a deepe ditch with a rampier: but the ditch must be so made, as it may receiue all the water that comes from aboue, or fals into it, wherein the vamure must be so steepe, that it may not easily be climed. This kinde of fence is to be made, where the ground lyes neere the hye way, or buts vpon the riuer, of which sort I shall haue occasion to speake more hereafter. The fourth fence made by the carpenter or by the mason, is commonly knowen: whereof there is foure sorts, either of Stones, or of brickes, of Turfe, and earth, and little stones framed in moulde. *Columella* following the ancientest authors, preferreth the quickset hedge before the dead, both because it is lesse chargeable, and also endureth the longer, continuing a long time: which hedge of yoong thornes, he teacheth to make in this sort. The place that you determine to enclose, must after the beginning of September, when the ground hath beene well soked with raine, be trenched about with two furrowes, a yard distant one from the other, the deapth & breadth of euery one of them must be two foote, which you must suffer to lye emptie all winter, prouiding in the meane time the seedes that you meane to sowe in them, which must be the berries of sharp thornes, briers, holly, & wilde Eglantine, which the Greeks call κυνοσβατον, dog brier. The berries of these you must gather as ripe as you may, and mingle them with the flowre or meale of tares, which when it is sprinckled with water, must be put vpon old ropes of ships, or any other ropes, the ropes being thus handled and dried, must be layed vp in some boored flooze. Afterward when winter is done, within fortie dayes after, about the comming of the Swallow, if there be any water remaining in the furrowes, it must be let out, and the mellowed earth, which was cast out of the furrowes in the end of Summer, must now be cast in againe, till you haue filled them vp to the midest: then must you handsomely vnfold the ropes, and lay them in length through both the furrowes, and so couer them, taking good heed that you throw not too much earth vpon them for hindering the spring, which commonly vseth to appeere within thirtie dayes after, and when they be growne to be of some height, they must be made to encline to the space betwixt

The making of a quickset hedge.

An other newer and better way of making a quick-set hedge.

the two furrowes: in which space you must haue a little walled hedge, to teach the springs of other furrowes to climbe by, which will be a iolly stay and a comfort to them. But I haue an other and a more readier way of making of them, which you first practising in this Countrey, diuers others haue followed. I also do make a certaine Ditch, and gathering in the wood the yoong springes of Thornes, cutting off their toppes, I set them on the bancke of the Ditch, so that they stand halfe a foote out of the ground, plucking vp all the weedes (specially the first Sommer) that growe about them and sucke away the iuice that comforts the set. The Rootes being thus rid, I couer all the earth about them with straw, whereby both the deaw of the night is let into the Rootes, and the poore Plant is defended from the burning of the sunne. The yeere after, I make a little slender raile of plants, whereunto I lay vp the springes, weauing them in such sort as I will haue them to growe, which I yeerely make higher, according to the height that I would haue the Hedge to spring. Eight, or at the vttermost nine foote, is a sufficient height, and what so euer spring aboue, must be plashed of one side or the other, to make the fence the stronger. Whē I haue thus done, I matte it thicker and thicker euery yeere, filling vp the places where I see it thinne, with such bowes as I see grow out of order: and thus is it wouen so thick with yeerely bindings, that not so much as a small bird is able to passe thorow it, nor any man to looke through it. When it is thicke enough and big enough, the superfluous springes must euerie yeere be cut. This hedge can neuer be destroyed, except it be plucked vp by the rootes: neither feareth it the hurt of fire, but will grow the better for it. And this is my way of enclosing a Garden, as the pleasantest, most profitable, and of least charges.

An other sort of hedging.

THRA. There is an other way of making of a quickset Hedge, which our Hedgers in the Countrey doe vse, which is something the stronger. For setting the yoong settes, as you haue said before, when they be growen to some greatnes, they cut the Thorne neere to the ground, and being halfe cut and broken a sunder, they bowe it along the Hedge, and plash it. From these cuttes spring vp newe plants, which still as they growe to any bignes they cut them, & plash them againe: so dooing continually, till the hedge be come

to

to his full height. This way the Hedge is made wonderfull strong, that neither hogge nor other beast, is able to breake through it: but the other is a great deale more pleasant to the eye. But if I haue not settes enough to serue, may I make an Impe Garden of their seed?

MARIVS. Yea very well. Make your Thorne Garden or store plot in this sort. Take your Berries or stones, and mingle thē with earth, lay them vp for the first yeere in some place meete for them, the next yeere sowe them as thicke as you can, and yee shall within a little time haue a whole wood of thornes.

THRA. You haue now spoken of Water and enclosure, two principall pointes in a Garden: It now remaineth for you to speake of the ground meete for a garden, and of the order of dressing of it.

MARIVS. Of the sundrie sortes of ground, and of the descerning of them, because you in your discribing of Corne ground before haue sufficiently spoken, I doe not thinke it needful for me to repeat it, Againe, it is enough to me to adde onely this, that the ground ought not to be too riche, nor too leane, but fat and mellowe, which bringeth foorth a small kinde of Grasse lyke heares: such ground requires least labour, the stiffe and the riche ground asketh greater paynes about it, but both recompence it againe with his fruitfulnes. The stiffe, leane, and cold ground, is not to be medled with, as *Columella* writeth in appointing good ground for Gardens.

The ground that giues the ripe and mellowed mould,
And doth in working cromble like the sandes:
That of his owne good nature yeeldeth manifold,
Where Walwoort with his purple berrie standes.
For neither doth the ground that still is dry,
Content my minde, nor yet the watrie soyle:
Whereas the Frogge continually doth cry,
While in the stincking Lakes he still doth moile.
I like the land that of it selfe doth yeeld,
The mighty Elme that branches broad doth beare,
And round about with Trees bedecks the field,
With Trees, that wild beares Apple, Plumme, and Peare,

But will no Bearefoot breed, nor stincking Gumme,
Nor Yewe nor Plantes, whence deadly poisons come.

What to be considered in the choise of garden ground. Ayre. Winds.

And this much of the Garden ground, which as I said, is watred, or may be watred, and is enclosed either with a wal, a hedge, or some other safe enclosure. After this, it is needfull it lie well to the sunne, and warme: for in ground that is very cold, the warmth of the Sunne will not much availe it. And contrary, if it bee a hotte burning sand, the benefite of the Heauens can little helpe it. You must yet looke, that it lie not subiect to ill winds, that are drie and scorching, and bring frosts and mistes. But now to the ordering of your Garden. First, you must be sure that the ground which you meane to sow in the Spring, be well digged in the fall of the leafe, about the Kalends of October: and that which you garden in the fall of the leafe, must be digged in May, that eyther by the cold of Winter, or the heate of Summer, both the clod may be mellowed, and the rootes of the weedes destroyed, nor much before this time must you doung it. And when the time of sowing is at hand a fiue daies before the weeds must be got out, and the doung layed on, and so often and diligently must it be digged, as the ground may bee throughly medled with the mould.

The ordering of Gardens.

Therefore the parts of the gardens must be so ordered, as that which you meane to sow in the end of Summer, may be digged in the spring: and the part that you will sow in the spring must be digged in the end of Summer: so shall both your fallowes be seasoned by the benefite of the cold and the Sunne. The beddes are to be made narrow and long, as xii. foot in length, and sixe in breadth, that they may be the easier weeded: they must lie in wet and watrie ground two foot hie, in dry ground a foot is sufficient. If your beds lye so drie, as they will suffer no water to tarry vpon them, you must make the spaces betwixt hier, that the water may be forced to lie and auoid when you will. Of the kinds and sorts of dounging beyng sufficiently entreated of by you, I will say nothing: onely, adding this that the doung of Alles is the best, because it breedeth fewest weeds: the next is Cattels doung, and Sheeps doung, if it haue lien a yeere. The ground as I said which we meane to sowe in the spring, we must after the end of Summer let lie fallow, to be seasoned with the frost and the cold: for as the heat of Summer,

Beddes.

Of digging & dounging of Gardens.

mer, so doth the cold of the winter bake & season the ground. When winter is done, then must we beginne to doung it, and about the fourteenth or fifteenth of Januarie, wee must digge it againe, diuiding it in quarters and beddes. First must the weedes be plucked vp, and turfes of barrain ground must be layed in the Alleies, which beyng well beaten with Beetels, and so trod vpon, that the Grasse be worne away, so that it scarse appeere, it will after spring vp as fine as little heare, and yeeld a pleasant sight to the eie, which will be very beautifull. When you haue seuered your flowers by themselues, your Physicke Hearbes by themselues, and your Potte hearbes and Sallets in another place, the beddes and the borders must be so cast, as the weeders hands may reach to the middest of them, so shall they not need in their labour to tread vpon the beds, nor to hurt the hearbes. And this I thinke sufficient for the preparing of your ground before the sowing. Now will I speake of sowing, and what shalbe sowed in euery season. To speake of all sortes of hearbes and flowers, were an endlesse labour, onely of those that are most needfull, I meane to entreat. And first of hearbs, some are for the Pot, some for the sight, some for pleasure and sweet sauour, and some for Physicke. And againe, some are for winter, some for Summer, and some betwixt both. The first time of sowing after winter, is the moneth of March. Aprill, and May, wherein we vse to sow Colworts, Radish, Rape, and after Beetes, Lettuse, Sorell, Mustardseed, Corriander, Dill, & Garden Cresses. The second season for sowing, is in the beginning of October, wherein they set Beetes, and sow Smallage in *Nigella* and *Arreche*. The third season, which they call the Summer season, in some place the gardners begin in January, wherein they set Cucumbers, Gourdes, Spinnach, Basill, Purslaine, and Sauerie. Many thinges may be sowed betwixt these seasons, and yet do very well. All Garden hearbes are cõmonly sowen before the tenth of June, such things as you would not haue seede, you may sow after this time.

Of sowing.

Three seasons to sow in.

Some things are sowed onely two times a yeere, in the Spring, and in the end of Summer. Others againe at sundrie times, as Lettuse, Colworts, Rocket, Radish, Cresses, Corriander, Cheruill, and Dill. These are sowed about March, or about September, and *Columella* saith, doe come either of the seed, or of the slippe:

some of the roote, some of the stalke, some of the leafe, some of the Clot, some of the Head, some of both: others of the Barke, others of the Pith, some both of the seed and the slippe, as Rew, wild Marierum, and Basill, this they cut off, when it comes to be a handfull hie: Others grow both of the seed and the roote, as Onions, Garlike, and such like. And although all thing will growe of their seeds, yet this they say, Rew will not do: for it very seldom springs, therefore they rather set the slippes. Those that are set of the roote, do commonly last longer, and braunch better, putting forth young slippes from his sides, as the Onion and Gith. The stalke beyng cut, they all do spring againe for the most part, except such as haue speciall stalkes, called *Theophrastus* ἀνάκαυλα, that is such as when the stalke is cut, grow no more: *Gasa* interprets it *Secaulia*. The Rape and the Radish, their leaues being pulled away and couered with earth, doe grow and continue till summer. The fruits of some is in the earth, some without and some both within and without, some lie and grow, as the Cucumber and the Gourd, and somtimes hang, though of greater weight by much then the fruits of Trees: some require staies and helpes to clime by, as Hoppes, Lupines, and Peale: some seede groweth better. The newer they be, as Leekes, *Nigella Romana*, Cucumbers, and Gourdes, and therefore some vse to steepe their Cucúbers, in Milke or water, to cause them to growe the speedelier. On the other side, of old seed better groweth the Beete, Garden Cresses, Peniriall, great Marierum, & Coriander. In the Beete this is onely obserued, that the seed cómeth not all vp in one yeere, but part the second yeere, and some the third: and therefore of a great deale of seede, springeth but a little. Touching seed, this is to be well seene to, that they be not to old and dry, that they be not mingled, or taken one for an other: old seed in some is of such force, as it chaungeth the nature: for of old Colwoort seede springeth the Rape, and likewise of Rape seede Colwoorts. Also that yee gather not your seedes too soone, nor too late. The very time, as *Theophrastus* writeth, is at the spring, the fall of the leafe, and the rising of the Dogge: but not in all places and kindes alike. Of seedes, the soonest that spring are these, Basill, Arach, Mauen, Rocket, that commeth vp the third day after the sowing, Lettuse the fourth day, the Cucumber and the Gourd, the fifth day

Of seedes.

What seede spring soone, and which slowly.

Purslin

Purſlin longer eare it come, Dill the fourth day, Creſſes, and Muſtarſeed the fifth day, Beetes in ſommer, the ſixt day, in winter the tenth or the twelfth, Leekes the xix. day, ſometime the xx. Coxriander later: which if it be new (except it be thruſt together) it groweth not at all. Peneriall, and great Marierum, come vp after thirty daies. Parſely, of all other the longeſt before it come vp, appearing the fortieth day after, or many times the fiftieth. You muſt alſo conſider, that the weather in ſowing is of great force: for the ſeaſon being faire and warme, they come vp the ſooner. Some ſorts ſeed one yeere, and neuer after come vp: ſome againe continue, as Parſely, Smalledge, Leekes, Nigella, that being once ſowed, come vp euery yeere. Such as cõtinue but a yeere, preſently vpon their ſeeding die: other ſpring again after the loſſe of their ſtalke, as Leekes, Nigella, Onions, and Garlike: and commonly all ſuch as put out from the ſide: and all theſe require dounging and watring. In ſowing beſide ſome thinke you muſt haue regard to the Moone, and to ſowe and ſet in the encreaſe, and not in the wane. Some againe thinke it beſt from that ſhe is foure daies old, till ſhe be eighteene: ſome after the third, others from the tenth, til the twentieth: and beſt (as they all ſuppoſe) the Moone being aloft, and not ſet.

The weather for ſowing.

The Moone.

THRA. But now I pray you tell vs ſomething of the ordering of the beſt Garden hearbs you haue.

MARIVS. Some deuide their Gardening time by the Moneths, as they doe their other huſbandrie.

THRA. I care not whether by Moneths or other waies, but I would faine know the ordering of your Garden here, for I know in hot countries they garden all the winter long, but I am altogether for our countrie, whoſe order we muſt here folow.

MARIVS. In theſe parts they commonly begin their Gardening (if the weather be faire and ſeaſonable) in the end of Februarie. At this time therefore the Garden being dounged, digged, raked, and cleanſed, they vſe to plant Sperage, and Rewe.

The time for gardening.

THRA. I pray you begin with *Aſparagus*, or Sperage, and the other pot hearbes, euery one in his order, and afterward with flowers, and Phiſike hearbes.

Of pot herbs.

MARIVS. *Aſparagus* was woont to grow wild, but now is brought into the Garden, it is called in Greeke ἀσπάραγος, in Italian,

Aſparagus.

Spanish, and French, it is almost all one, the one call it *Asparago*, the other *Asperge*, the Dutchmen call it *Sperages* and *Spiritus*, because it comes vp of it selfe: For the Garden sperage they were not acquainted with. It is planted in two sortes, eyther of the Seede, or the Roote, They take of the seede as much as you may take vp with three fingers, and bestowing it in little holes, euery two or three seedes halfe a foote a sunder: they set them in rich ground in Februarie, and couer the ground with doung. The weeds that growe, must bee well plucked away, after the fourtieth day they come vp as it were to one roote, entangled together, the rootes haue sundry long threeds, which they call the Sponge. In ground that is dry, the seedes are to be set deepe, and well tempered with doung. In wet grounds on the other side, they are to be set shallow in top of the borders, least the moisture destroy them. The first yeere you must breake of the stalks that grow, for if you pluck them vp by the rootes, the whole settes will follow, which are to be preserued for two yeere with dounging and weeding. All the yeeres after, you must not gather them in the stalke, but pull them from the roote, that the rootes being opened, may the better spring, which except you doe, you hurt the Spring. Him that you meane to keepe for seede, you must in no wise meddle withall, after, burne vp the bushes, and in Winter doung well the roots with doung and ashes, they are planted also of the rootes, which after two yeeres you must remoue into a warme and well dounged ground. The trenches where you meane to set them, must stand a foot a sunder, and a shaftman in depth, wherein you must so lay you Sponges (as being couered) they may best grow: but in the spring before they come vp, you must loose the earth with a litle Forke, to cause them the better to spring, and to make the rootes the greater. *Cato* would haue you to rake them, but so, as you hurt not the rootes, and after to pull the plant from the Roote: For if you otherwise breake, the roote will die, and come to nothing. But you may so long crop it, till you see it begin to grow to seede: in which yeere for the Winter time, you must according to *Catoes* minde, couer it with strawe, or such like, least the cold doe kill them, and in the spring open it againe, and doung it well. Some thinke, that the first yeere it is needlesse to do any thing to the plant, but onely to weed it. From the Rootes,

which

which they call the Sponges, there ſpringeth firſt certaine budds with crompled knoppes, very good and pleaſant for Sallets: which if you ſuffer to growe, it ſtraight way buſheth foorth with braunches like Fennell, and at length grow to be prickly: after it hath floured, it beareth a Berry, firſt greene, and when it is ripe red. If you would haue Sallets of *Aſparagus* all the yeere through: when you haue gathered the Berries, open the Rootes that runne aloft by the ground with digging, and you ſhall haue the Rootes ſende foorth newe buds out of hand. It is thought, that if you breake to powder the horne of a Ram, and ſowe it, watring it well, it will come to be good Sperage. In the ſpring time they make a very good Sallet, being ſodde in water, or fat broth, till they be tender: for if you ſeeth them to much, they will waſte away. When they be ſodde, they dreſſe them with Vinegar, Oyle, Pepper and Salt, and ſo eate them: or as my friend William Prat very ſkilfull in theſe matters telleth me, they cut them in ſmall peeces like Diſe, and after they haue parboiled them, butter them with ſweet butter, a little Vinegar and Pepper.

THRA. You haue very well ſhewed me the ordering of *Aſparagus*, I pray you go forward to Rewe.

Rewe.

MARIVS. Rew, which the Greekes call ἄβρωτον, the Latines *Rutam*, the Italians *Rutache*, the Spaniards *Ruda*, the Frenchmen *Rude de gardin*, is planted at the end of Februarie, or in March, proſpering beſt in drie and Sunnie grounds, it abhorreth both water and doung, which all other hearbes, moſt delight in, it moſt delighteth in aſhes: and where all other plants will ſpring of the ſeede, this they ſay will neuer doo it. The branches being ſlipped off, and ſet in the ſpring, will very well grow, but if you remoone the old roote, it dieth: it delighteth in the ſhaddow of the figge tree, and being ſtolne (as they ſay) it proſpereth the better: it is ſowed with curſing, as Cummin, and diuers other, & can not abide the preſence of an vncleane woman.

THRA. I ſee good Lettuſe here, I pray you how doe you order it?

Lettuſe.

MARIVS. Lettuſe is called in Dutch Lattich, in French *Laictue*, in Greeke θρίδαξ, in Italian *Lactuca*, and ſo in Latine, in Spaniſh *Lechugas*, whereof beſides the wild, there are three kinds,

one croompled which *Columella* calleth *Cecilia*, and Spanish Lettuse, of the countries where it most groweth, and is greatest esteemed, in Dutch called *Krauser Lattich*, in French *Crespue*, the other Cabbedge Lettuse, in Dutch *Knopf Lettice*, in French *Laictue testue*, of *Plinie* called *Laconica*, and *Sessilis*, because it groweth round like an head, or an Appell. The third sort is called *Rotunda*, because it groweth in compasse vpon the ground.

THRA. But how come you to haue so good Lettuse, and how do you order them?

MARIVS. At the end of Februarie, or in the beginning of March, wee vse to sow it, that it may bee remooued about Aprill or May. In hot countries as *Palladius* telleth, they sow it in January, or in December, with intent to remooue it in Februarie: but you may sow it at any time of the yeere, so the ground be good, well dounged, and watred. When you remooue them, the rootes must be pared and rubbed ouer with doung, and such as be already planted, their roots must be pared and doliged: they loue a good ground, moist and well dounged, they spread the better (if you set by them the Rape) or when they begin to stalke, the stalke being tenderly clouen, you lay vpon it a clod or a Tilesharde: they will be white, if you sprinkle them often with sand, or tie sand within the leaues, and both tender and white you shall haue them. If too daies before they be gathered their toppes be tied vp, they will be round and Cabbedged. If the roote being remooued when it is growen a hand broad in height, be pared and smered with fresh Cowe doung, and earth cast about it, bee well watred, and when it groweth hie, the toppe be cut, a potshard laid vpon it, the sweeter also they will bee, the more you restraine the stalke from shooting vp, which must as I sayd, bee kept downe with some stone or weight, that they may spread the better. If the Lettuse chaunce by reason of the badnesse of the soyle, the seed, or the season, to waxe hard, the remoouing of it will bring it againe to his tendernesse: it will haue sundry and diuers tasts, if taking a Treddle of Sheepe, or Goates doung, and hollowing it cunningly with an Aulle or a Bodking, you thrust into it the seed of Lettuse, Cresses, Basill, Rocket, Smallage, Percely, and Radish, and after wrapping it in doung, you put into very good ground and water it well. The Percely, or Smallage goeth

to

to roote, the others grow in height, keeping still the tall of euery one. *Constantine* affirmeth Lettuse to be a moist and a cold herbe, a quencher of thirst, and causer of sleepe, and that being boiled, it nourisheth most, and abateth Lecherie, for which the *Pythagorians* call it *Eunuchion*. *Galen* himselfe, the Prince of Phisitions doth greatly commend it, who in his youth did alwaies vse to eate it raw, and after in his elder yeeres boyled, where by he kept his bodie in good temperature. Endiue, in Latine *Intubum*, or *Intubus*, not vnlike to Lettuse, some call it Garden Succorie, the Dutchmen and common sort *Endiuiam*, the Italians and the French *Cicoriam*, the Spaniardes *Endibia*, it is sowen as other Garden hearbes in March, it loueth moysture and good earth, but you must make your beddes when you sowe it the flatter, least the earth falling away, the rootes be bared: when it hath put foorth leaues, you must remoue it into well dounged ground: that which is sowen before the kalends of July, doth come to seede, but that which is sowen after, seedeth not. You must sowe that which you would haue to serue you in winter in October, in warme stonie places for Sallets in winter, they vse at this day when his leaues be out, to fold them vp together, and tie them round in the toppe with some small thing, couering them with some little earthen vessell, the rootes still remaining to nourish them withall: thus doing, they will grow to be white and tender, and to loose a great part of their bitternesse. It is said, that they will be white, if they be sprinckled a few daies abroad, and lying vpon sand, be washed with the raine: And thus is Endiue with his encrease preserued all Winter. Some there be, that contenting themselues with lesse charges & labour, do only couer them with earth, others againe with strawe: this order of wintering of it, is now in euery place growen to be common. Endiue.

THRA. I see also in this pleasant Garden Colwoorts, that we Countrey folkes be so well acquainted with. Colworts.

MARIVS. It is meet my Garden should not want that, which as you know *Cato* preferreth before all other hearbes, in describing the wonderfull properties and vses thereof: and this place I onely appoint for such common Pot hearbes, as Colwoorts, Beetes, Endiue, Onions, Rapes, Nauenes, Leekes, Carrets, Raddish, Garleeke, and Parsneps: the woorthier sort I place by themselues, and

as

as the nature of euery one requireth. Colwoorts is commonly called in Latine *Brassica*, or *Caulis*, in Greeke κραμβη, in French *Choux*, in Italian *Caule*, in Spanish *Verza*, in Dutch *Koil*. The old writers made diuers sorts of it, as at this day there be. One sort with great and broad leaues, a big stalke, and very fruitfull. This sort is commonly knowen, which being the pleasanter in Winter, when it is bitten with the frostes, is sod with Baken, and vsed in Porredge. The tender part of the top being a little boyled, is serued for sallets, dressed with oyle and salt. The second sort with the croompled leafe, of the resemblance that it hath to Smallage, is called *Selinoeis* or *Apiaria*, of the common people crompled Coll, or wrinckled Coll. The third sort which is properly called *Crambe*, hath a smaller stalk & leafe, smooth, tender, & not verie full of iuice. The fourth sort is the great Cabbedge with broad leaues & a great head, called in Dutch Kappes, in French *Cheux Cabus*, of the old writers *Tritiana Brassica*, and this kind is onely most set by. In Germanie there is one kind of them that they call Lumbardy Colwort, or Sauoy Colwort, sweeter then the other, & not able to endure the winter: and an other with verie broad leaues crompled, & full of wrinckles, but a great deale blacker, which the Italians call *Nigrecaules*, and the Latines *Nigra Brassica*, of the number of those that they call commouly red Coll, of the olde writers *Marucina Brassica*. There are besides other sorts, taking their names of the countrey where they grow, as *Aricina* and *Cumana*. The best time for setting and sowing of Colworts, is after the Ides of Aprill. In cold and rainie Countries, the oftener it is dounged and raked, the better a great deale will the Colworts be: some vse to sowe them about the Kalendes of March, but the chiefest of it goeth out in leafe, and when it is once cut, maketh no good stalk for the Winter after: yet may you twise remoue your greatest Coll, and if you so do, you shall haue both more seede, and greater yeeld: for it so aboundeth with seede, as it is sowed with no lesse aduantage then Rape seede. For the making of oyle, Colworts may be sowen all the yeere long, but chiefly in March after it is sowed, it appeareth within ten dayes, except your seedes be old and dry, for old seede will grow to Rapes, as old Rape seede will to Colworts. Some say it prospereth best in Salt ground, and therefore they vse to cast

vpon

vpon the ground Sal peter or ashes, which also destroyeth the caterpiller: it is remooued in June, chiefly when it hath put forth fiue leaues, and that when the weather is rainie, so that you couer the roote before with a little fresh dung, and wrap it in seaweede, and so set it. More diligence is to be vsed about the Cabbedge: it must be sowen in March in the full of the Moone, that it may remaine in the ground two Moones, and in May you must take them vp, and set them againe two foote asunder. The ground must be well digged where you set them, and as fast as they grow, the earth must be raised about them: so that there appeere no more than the very tops of them: for to cause them to grow faire & great: you must as oft as you remoue them banke them vp with earth about them, that nothing but the leaues appeere. And thus you must often do to all the kindes of them, the hoare frosts make them haue the greater sweetnesse. The Vineyards (they say) where Colworts growe, do yeeld the worser Vines, and the Coll corrupteth the Vine.

THRA. I pray you proceede with the rest of these pothearbs.

MARIVS. You see hereby Spinage, so tearmed (as you may know) of the prickly seedes, called in Latine *Spinacia*, and euen so in Italian, Spanish, French, and Dutch: it is sowen as those before, in March, Aprill, and so till September: if it may be well watered, it commeth vp in seauen daies after the sowing, you shall not neede to remoue it. The seede must presently after the sowing be couered, and afterward well weeded: it refuseth no kind of ground, but prospereth in euery place: you must often cut it, for it continually groweth, it is to be boiled without any water, where in the boiling it doth yeeld great store of iuice, and contenting it selfe with his owne liquour, it requireth none other. Afterwarde, being beaten and stirred with the Ladell, till the clammines be gone, it is made vp in little balles, the iuice strained out and boyled vpon a Chafyndish with Oyle or Butter; some adde thereunto Vergius, or the iuyce of sowre Grapes, to make the taste more tarte. I shew you in order as you see, all my Kitchin hearbs, now followeth Sorell, called in Latine *Acetosa*, in Italian likewise, in Spanish *Romaza*, in French *Oxella*, in Dutch *Surick*, of the sowrer therof. There are sundry sorts of it, we haue at this day two kinds, the garden Sorell & the wild, which are pleasant both in broth and

Spinage.

Sorell.

and Sallettes, and of this hearbe the wylde ſorts are both ſower in taſte, and ſmaller in leafe: it is ſowed as all other pothearbes are, and it groweth of it ſelfe in meddowes and Gardens. Cummin and Coriander require well ordered ground, they are ſowed in the ſpring, and muſt be well weeded. Cummin is called in Greeke κυμινον, in Latine *Cuminum*, and almoſt like in all other languages: it is ſowed beſt (as they thinke) with curſing and execration, that it may proſper the better. Coriander called in Greeke κορις ἢ κορεσσον, in Latine *Coriandrum*, and is almoſt by the ſame name in all other tongues, doth beſt proſper when it is ſowed of ſeede that is oldeſt. Smalledge and Parſley called in Greeke σελινον κηπαιον, and alſo *Petroſelinon*, in Latine *Apium Petroſelinum*, and *Apium hortenſe*, in Italian *Apto domeſtico*, and *Petroſello*, in Spaniſh *Peterſillie* or *Peterlin*, it is ſowed at the *Aequinoctiall* in the Spring time, the ſeede beaten a little, and made vp in round pellets: we call it *Aequinoctiall*, when the night and the daies are of equall length ouer all the world: that is, when the ſunne, the captaine and aucthour of the other lights, the very ſoule of the world, dooth enter into the ſignes of *Aries* & *Libra*. It is thought to proſper the better the older the ſeed is, and to ſpring the ſooner: it commeth vp the fiftieth day, or at the ſooneſt the fortieth day after it is ſowen: when it is once ſowen, it abideth a lõg time, it reioyceth in water or wet. Fenell in Greeke μαραθρον, in Italian *Fenochio*, in Spaniſh *Hinozo*, in French *Fenoil*, in Dutche *Fenchel*, is ſowed in the beginning of the Spring in hote ſunnie places, ſtonie ground, or any ground: being once ſowen, it ſpringeth euery yeere. Anniſe in Greeke ἀνισον, in Latine *Aniſum*, ſo knowne in moſt tongues, as Cummin, and Coriander, requireth a ground well ordered and dreſſed. Dyll in Greeke ἀνηθον, in Latine *Anethum*, in French and Italian almoſt ſo, in Spaniſh *Eneldo*, in Dutch *Dyll*, endureth and abideth all kind of weathers, but delights moſt in warme ground: if it be not well watered, it muſt be ſowed thinner. Some neuer couer the ſeedes when they ſowe them, ſuppoſing that no Bird will meddle with it, it commeth vp alſo of it ſelfe as Fennell doth. Cheruill in Greeke χαιρεφυλλον, in Latine *Cerofolium*, in Dutch *Kerbel*, in Italian *Gingidia*, in French *Cerfueil*, deſireth a good ground, moiſt, and well dounged: it is ſowed with the reſt in cold places. In this ſame moneth they alſo ſowe Beetes, though

Cummin and Coriander.

Smalledge or Parſley.

Fenell.

Dyll.

Cheruile.

though you may sowe them when you will at any other time of the the yeere as Spinage, it is a common countrey hearbe, they call it in Greeke τεῦτλον, in Italian *Beitola*, in Spanish *Acelga*, in Dutch *Beet*, or *Mangelt*. No Garden hearbe, hath greater leaues, so that with due ordering it groweth like a yoong tree. It is called *Beta*, because when it seedeth, it is (as *Columella* affirmeth) to the likenesse of the Greeke letter β. There bee two sortes of them, the white and the blacke, the ordering of them is after one sort: it is sowed as Colwoorts, Sorell, and Radishe are, in Marche, Aprill, or May. Some thinke the best, the time for sowing it, is while the Pomegranate doth flowre, it may be sowed neuertheless as Lettuse, Cols, and diuers others, at any time of the Sommer. The seede, the older it is, the better it is to bee sowne, as are the seedes of Smallage, Parsley, Garden Cresses, Sauerie, wild Marierum, and Coriander, though in all other the newest be best. It commeth vp in Sommer the first day, in winter the tenth after the sowing, it loueth a moist, a rich, and a mellow ground, you may remoone it when it hath put foorth fiue leaues, if your ground like well to be watred: if it bee dry ground, it must be set in the end of the Sommer, as I haue said of Colewoorts, though it make no great matter at what other time you doe it. When you remoone it, you must rubbe ouer the roote with new doung. This is proper to the Beete, that his seede come not all vp together, but some the yeere after, some the third yeere: and therefore of a great deale of seede, there is at the first but a little shew, it groweth the broader and the whiter, if when it is something growen, you lay vpon it Tile stones, or such like: to cause it to spread, as I spake before of Lettuse. Garden Cresses in Greeke νάπυ, in Italian *Nasturtio*, and *Agretto*, in Spanish *Mestuerzo*, in French *Cresses de gardin*, in Dutch *Kers*, are sowed both in the spring, and at the fall of the leafe, it commeth vp the first day after it is sowen, and drinketh away the moysture from such hearbes as grow neere him, mingled with other hearbes, he careth not what weather come, and therfore prospereth both as well in Winter as in Summer: if it be sowen with Lettuse, it cõmeth vp exceedingly, it delighteth in moisture, which if it want, it wil do wel enough: in watery places it groweth of his owne accord: as about *Padelbor*, a towne in *Westphalia*, it groweth

Garden cresses.

in

in great aboundance in the Riuer, and therefore is called of some water Cresses: it was called in the olde time *Sisimbrium*. The braunches when they waxe olde, are netted together with white heary ringes.

Garden Poppy.

Garden Poppy, called in Greeke *μηκων κηπεια*, in Latine *Papauer satiuum*, is thought best to growe, where olde stalkes haue bene burnt, it is sowed in warme places with other pot herbes.

Mustard seed.

Mustardseede in Greeke *σινηπι*, in Latine *Sinapi*, in Dutch *Seneff*, in Italian *Senape*, in Spanish *Mostaza*, in French *Senene*, there are two kindes, white and blacke, it is best to be sowed in the ende of Summer, and againe in March. Where it is once sowen, it is hard to ridde the ground of it againe, because the seede doth still grow as it falleth. It loueth to growe vpon doung-hils, and call bankes.

THRA. I see you haue very faire Radishes here.

Radish.

MARIVS. Nothing so faire as I haue had them, for where as they delight in the Sunne, & in warme ground, my Gardners haue here set them in the shadow. The order of them is to be set in very good ground, and lying vpon the Sunne: some saith, it doth not greatly care for doung, so it may haue Chaffe strawed vpon it. When it is come to some groweth, they must be couered with earth, for if it flourish once aboue the ground, the rootes will neuer bee good, but hard and full of pith. It is called Radish, because it exceedeth all other rootes in greatnesse. *Plinie* writeth, that hee saw at *Erford* in Germanie, Radish as big as the body of an Infant. It is sowed twise in the yeere, in Februarie or March, the Moone being in the wane, least it grow too much in leaues, foure fingers distant one from the other: and againe in August, which is the best season for them. Those that you set after the tenth of June, will neuer seede, the like is to be obserued in all other seeds, it commeth vp commonly the third day after it is sowen: in hotte and Southerly Countries, the weather being faire, it groweth soone to stalke; and quickly seedes. The leaues as they grow, must still be trampled downe and troden vpon, whereby the roote shall growe the greater: otherwise it flourisheth with leaues and giueth encrease to the leafe, and not to the roote: the lesse and the smoother the leafe is, the milder and the sweeter is the roote: colde as some say, doth further the goodnesse of them. They say they will be very pleasant,

if

if the seede bee steeped in Weeuth, or in the Iuice of Raizins: they waxe sweete with colde as the Rape doeth, and their bitternesse is taken away with vzine, and therefore some would haue Radishes watred and nourished with salt waters: being sodden, they come to be very sweet: and serue the turne of Rapes, giuing fasting, they prouoke vomite, they are hurtfull to the Vaines and to the Teeth. Radish eaten at first, is a good preseruatiue against poyson: eaten before meate, it breaketh winde, and prouoketh vzine: and after meate it looseth the belly, it is called in Greeke [illegible], in Latine *Raphanus*, in Italian *Raphano*, in Spanish *Rauano*, in Frēch *Raue*, in Dutch *Retich*.

THRA. There is an other kind of them, that the Dutch men call *Merrettich*, I take it to bee that which the Romanes called *Armaracia*, called commonly in Italy *Ramaracia*, the first letter misplaced.

MARIVS. You say well, but this is more full of vzaunches, greater in leaues, thinne in body: the leaues are not vnlike to the former Radish, but that they are a little sharper and longer, and the roote slenderer, and therefore there are some that denie it to be *Armaracia*: but here let the Philitions contend. *Theophrastus* maketh mention of sundry sortes of Radish, This kind of Radish hath a woonderfull byting taste, a great deale more then Mustardseed, and fetcheth teares from the eyes of them that eate it: it is set and plāted in this sort. The roote is cut in a great number of peeces, wherof euery peece prospereth: for if you plucke vp this kind of Radish by the rootes you may cut off a good quantitie of the roote, and deuiding them into small peeces set them, setting the old roote againe by himselfe, and they will all grow and prosper very well.

THRA. Yea, haue you gotten the Rape? Hitherto I thought he had onely belonged vnto vs, for wee vse to sowe them after the Sunne hath beene at the highest, and immediately after, ouer other Corne, for the sustenance both of man and beast.

MARIVS. You doe well, and wee sowe it now in Maie, and in watry ground sooner, and in some places in Julie. There are diuers sorts of them, some of them round, some growe all in length, and are most pleasant in taste, as at *Binge*, and in the Countrey of *Bauar*. Some againe of the quantitie of a mans head, & of a hundred Rapes.

pound

pound weight: but the ſmalleſt ſort is the ſweeteſt. There is another kind of Rape that they vſe to ſowe, which carrieth his ſeede in little Cods, and is chiefly planted in Germanie for to make oyle of, the which you the other day ſpake of, it is called in Greeke γογγυλις, in Frenche *Raue*, in Italian *Rapo*, in Spaniſh *Nabo*, in Dutch *Ruben*.

The little Rape.

There is alſo another wild kind called *Rapunculus*, that groweth halfe a yard hie full of ſeed, and tender topped. This they gather in the Spring time, before the ſtalke be ſprong vp, and pulling it vp by the rootes, doe vſe it in Sallets, ſuppoſing it to be a wild kind of Rape. The Nauens alſo called in Greeke γογγυλις, in Latine *Napus*, in French *Nauet*, in Italian *Napo*, in Spaniſh *Nabicas*, in Dutch *Stockruben*, may be counted in the number of Rapes, for Rapes in ſome ground change into Nauens, and in ſome ground, Nauens into Rapes. Theſe alſo loue to growe in a well watred, mellow, and a rich ground: though ſuch as grow in Sandie and barraine ground, prooue often the ſweeteſt in eating. They vſe to ſowe them in March, and in ſome places before, as alſo in Auguſt.

Nauens.

Perſnep.

Parſneppe in Greeke σταφυλινος, in Latin *Paſtinaca*, in other toongs almoſt as in Latine, is very pleaſant to be eaten, and requireth a fatte and rich ground, & deepe digged, where by the roote may haue roome enough to growe in: it is ſowed and ſet in the ſpring, and in the end of Sommer.

THRA. You haue here alſo in this Garden red Carrets.

Red & yelow Carrets.

MARIVS. I haue ſo. Yellow Carrets is called in Greeke σισαρον, in Latine *Siſer*, in French *Cheruille*, in Italian *Siſero*, in Spaniſh *Chirinias*, in Dutch *Querlin*, I thinke you know it. *Plinie* writeth, that *Tiberius* was ſo in loue with this roote, that he cauſed Carrets to be yeerely brought him out of Germanie, from the Caſtell of *Gelduba* ſtanding vpon the Rhine. It delighteth in cold places, and is ſowed before the Kalendes of March, and of ſome in September: but the third and the beſt kind of ſowing as ſome thinke, is in Auguſt. There is alſo wild Carret, a kind of Perſnep, in Greeke δαυκος, in Latine *Daucus*, in Italian *Danco*, in French *Carote ſauage*, in Dutch *Woortzel*, there are that ſuppoſe it to bee the yellowe roote, that is ſo common in Germanie, they are to be ſowed in March. It is general to Rapes, Radiſhes, Parſneps, Carrets, Onions, and Leekes, that they be well troden vpon, or kept

cut,

cut, to the end the rootes may growe the greater. Of Leekes there are two sortes, the one called *Capitatum* κεφαλωτον, and the other *Sectivum*, which they vse alwaies to cutte close by the ground. The headed, or set Leeke, in Greeke κεφαλωτον, in Latine *Capitatum*, in Italian *Porro capitato*, in Spanish *Puerro con Cabeza*, in Dutch *Lauch*, in French *Porreau*, the other Leeke in Latine *Sectile*, in Greeke τομον, in Dutch *Schnitlauch*, beside the often raking and dounging, must bee watered as oft as you cut it downe. The seedes in colde hotte Countreis, is sowed in Januarie or Februarie, and in colder places, in Marche: to cause it to growe the fayrer and the better. They vse to knit vp a good deale of seed together in thin Linnen clothes, and so to lay them in the ground: but to make them greater headed, when it hath well taken roote, they vse to plucke it vp by the blades, and raise it so, that as it were hanging and borne vp by the earth, it is forced to fill the emptie place that lies vnder it: the blades and the rootes cut off, they vse to set the heads, vnderlaying them with a Tileshard, that when as they are not able to run downe in length, they should be driuen to growe in bignesse and breadth. The Leeke delighteth in good grouid, and hateth watry ground: sowed in the spring, it must be remooued or set againe after Haruest, that they may be the greater, the earth must be continually loosed about it, and they must be pulled and rayled vp, as I said before: if when you remoone them, you make in the heads of euery one a little hole with a peece of Reede, or any thing except Iron, and thrust therein a Cucumber seed, they they will growe to a woonderfull greatnesse: some vse in stead of Cucumber seede, to put in Rape seede. To haue very large & great Leekes, you must hollow a Treatle of Goates doung, and fill it full of Leeke seede, for the little sprout at the first restrayned, will runne altogether in one, and so come foorth of the ground: and this as *Hieronimus Cardanus* writeth, hath bene often tried to bee true. They shall not sauour of Leekes or Onyons, that haue eaten Cummin after. It commeth vp the tenth day after the sowing, and lasteth two yeere: the first yeere it contenteth it selfe onely with bearing of leaues, the next yeere it riseth in a long stalke hollow within, the toppe garnished with round knoppes of flowres. The Onyon: in Greeke κρομμυον, in Latine *Cepa*, or *Cepe*, in Italian *Cipella*, Leekes. Onyons.

polla, in Spaniſh *Cebolla*, in French *Oignon*, the next neighbour to the Leeke: is alſo of two kinds, the one kind called *Capitatum*, that groweth to head, the other *Fiſſile*, that without any head onely flouriſheth in blades, and is often gathered as Leekes are, and therefore onely is ſowen and not ſet in Febꝛuarie oꝛ March in faire weather, and in the wane of the Moone: it delighteth in ritch ground, well digged and dounged, and therfoꝛe *Columella* would haue the ground well fallowed, that it may bee mellowed with the winter froſtes, and after dounged, after well digged againe, and the roots & weeds caſt out, laid out in beds and ſowed: it is called *Fiſſile*, becauſe it is parted and diuided be low, foꝛ in the winter it is left with his toppe naked: in the ſpꝛing time the blades are pulled off, and others come vp in their places. The heads are ſette, and if you plucke away the tayles and the out growings when you ſet them, they will growe to bee very great. Twenty dayes beforꝛe you ſet them, digge the ground well, and lay it dꝛie, and ſo ſhall they pꝛoſper the better. The heads are ſet in *Autume*, and growe to ſeede as other plantes doo: if you meane to gather the ſeedes, when the ſtalke is growen, you muſt pꝛop it vp with little ſticks, that the winds ſhaking off the ſtalke, ſhatter not the ſeedes, noꝛ bꝛeake the ſtalke: which ſeed you muſt gather beforꝛe it be all blacke, foꝛ the blackneſſe is a true ſigne of the full ripeneſſe: if you will not haue it ſeed but head, plucke off the blade ſtill cloſe by the ground, ſo ſhall all the maintenance goe to the roote. Among all other hearbes, onely the Onion is not ſubiect to the foꝛce of the Moone, but hath a contrarie power, foꝛ it waxeth in the wane of the Moone, and decreaſeth in the encreaſe of it: yet there are that hold opinion, that if you ſowe them in the wane, they will bee the ſmaller, and ſowꝛer, and in the encreaſe, they will bee the greater, and the milder. The red Onyon is moꝛe ſharpe then the white, they are beſt pꝛeſeꝛued in Barley Chaffe, if firſt you dippe them in hotte water, and after dꝛy them in the Sunne, till they be thꝛough dꝛie. They are of the common people thought to laſt longeſt being hanged vp in the ſmoke, foꝛ the kinred it hath with the Onion. I pꝛoceed to ſpeake nexte of Garlicke, called in Greeke σκόροδον, in Latine *Allium*, in Italian *Aglio*, in Spaniſh *Aio*, in Dutch *Knobloich*, in French *Aux*, it groweth with a blade lyke the Onyon, but not hollow, the ſtalke round, and the

Fiſſile.

Onyons.

Garlicke.

flowꝛes

flowres in the toppe in a round tuft where the ſeede lieth. Garlicke groweth both of the head and the ſeede, as the Onyon and other of this kind dooth. It is commonly ſowed in Februarie or March, according to the diſpoſition of the weather, as the Onyon is. It would bee ſet in the vppermoſt part of little narrow ridges, the Cloues beyng diſtant foure or fiue inches one from the other, and not very deepe. After, when the Cloues haue putte foorth the little ſtringes, or when theyr blades are come vp, they muſt be well raked, for the oftner yee doe ſo, the greater they will bee: but if you will haue the heades the greater, before it grow to ſtalke, you ſhall winde and wreath the greene blades together, and tread them to the ground, for that continuall treading vpon them will make them the greater. In October the Cloues muſt be plucked a ſunder, and ſet in row vpō hie borders, that they may ſkape the danger of the winter ſtormes. They ſay the ſent of thē will ceaſe, if you eate after them the roote of Beets roſted at the fire: thus ſaith *Plinie* out of *Menander*.

THRA. What hearbe is that yonder that commeth vp ſo hie as a man may make a ſtaffe of the ſtalke, the leaues large & round, the flowre in ſhape ſeeming to compare with the Roſe?

MARIVS. It is Hollioke, or Garden Mallow, in Greeke Μαλαχη, in Latine *Malua hortenſis*, in Dutch *Peppell*, in Italian and French, almoſt as in Latine. Mallowes.

THRA. What, the ſame that *Horace* taketh to be ſo wholeſome for the body? and which of *Heſiodus* and *Martial* is ſo highly commended?

MARIVS. The very ſame, and alſo which is more wonderfull, in it the leaues turne about with the ſunne, ſo that it may ſerue in ſtead of a Dyall, declaring by the turning of his leaues, what time of the day it is, though the Sunne doe not ſhine, which the Philoſophers thinke to bee done, by the drawing of his moyſture. In Africa as *Plinie* writeth, it commeth in ſeauen moneths to bee like a yoong Tree, and ſerue well for a walking ſtaffe. It is ſowed in October, or in the ende of the Summer, as alſo at other times, that by the comming on of Winter, it may bee reſtrayned of his high growth: it reioyceth in ritch and moiſt ground, & muſt be remooued when it cōmeth to haue foure or fiue leaues, it groweth beſt

when it is young: when it comes to be greater, it dies in the remouing. We vse it both for the pot & for sallets, the tast is better when it is not remooued: you must sowe it but thinne for growing too rancke, & in the middest of them, you must lay little clodes or stones, it requireth continual raking, and maketh better the ground where it growes.

THRA. I marueyle whether you sowe Purcelaine, sith it groweth wild abroad.

Purcelaine. *MARIVS.* The Greekes call ἀδράχνη, the Latines *Portulacan*, with the Italians it hath the same name, in Spanish *Verdolaga*, in French and Dutch *Porchelle*, it is sowed in Gardens, and wel ordred doth grow the better, & spreadeth the farther, it hath a black seed growing in little greene cuppes.

THRA. Buglose that the Greekes call βούγλωσσον, the Latines *Buglossum*, the Dutchmen *Ochsenzung* or *Burretsch*, the Frenchmē *Borange*, the Italians *Borache*, the Spaniards *Boraie*. Is not this it that I see here with the faire blew flowre, & a stalke a foot long, and full of branches?

MARIVS. Buglose is at this day with the Poticaries called Borage, though they differ something in the flowre, and in very deed they are two sundry hearbes: for some call the common Borage, the lesser Buglose, and the greater Buglose is thought to be that which *Dioscorides* calleth *Circiū*, the true Buglose, the flowres of both sorts are vsed in Sallets, and in Wine, because it maketh the heart merrie, and therefore is called in Greeke εὐφρόσυνον, that is to say: gladnesse, the leaues are also vsed in dressing of meates, it is sowen about March, and once sowen, it will neuer away, there is also a wild kind of it.

THRA. I pray you go forward, & tell vs some thing of Straberries, which here grow with great plenty and beauty, helped as it seemeth with good ordering.

Straberies. *MARIVS.* They are so, for wee vse to bring rootes out of the woodes, which being set and planted in the Garden, prosper exceedingly two or three yeeres together: and after, wee either remoue them againe, because they ware wilde, or set the wilde in their places: and so haue wee them to yeeld their fruite twise in a yeere, in the Spring, and in the end of Summer. And although it

groweth

groweth of it selfe in shaddowy woods in great plentie, as if it delighteth in shadowe of Trees, yet being brought into the Garden, it delighteth in sunnie places, and good ordering, yeelding a great deale more and better fruite: it creepeth vpon the ground without a stalke with small strings comming from the roote, with a white flowre, and a leafe like a Trefoile, indented about. The berries, which is the fruite, are redde, and taste very pleasantly, the Dutchmen call them *Erdbern*, the Frenchmen *Freses*. There is an other fruit that groweth something higher, whose berrie is also like the Straberie. *Dioscorides* seemeth to call it *Rubus Idæus*, the Bryer of *Ida*, because it groweth in great aboundance vpon the mountaine *Ida*. It is not full of prickles, as the other brambles are, but soft and tender, full of branches and whitish leaues, it beareth redde berries, something paler than the Straberie, and very pleasant in taste. The Grecians call it βάτος ἰδαία and ῥοιβός, the Dutchmen *Imberen*, the Frenchmen *Framboſas*. Raspes.

THRA. What is that groweth yonder, a yard in height?

MARIVS. It is commonly called Liquirise, in Greeke γλυκύῤῥιζα, in Latine *Dulcis Radix*, in Italian *Regolitia*, in Spanish *Regaliza*, in French *Recliſſe*, in Dutch *Clarits*, or *Susholts*. Liquerise.

THRA. I did not thinke to haue found it here. I heare it groweth very plentifull about the Peine, I would be glad to heare how you doe order it, for it hath a roote for the sweetnesse thereof (whence it taketh his name) very commendable.

MARIVS. It is set of yoong springs of the roote: as the Hoppe is, in drie light ground and sunnie.

THRA. What say you to small Reazins, called in Latine *Ribes*? do you thinke the old writers knew this bush? Smal Reazins.

MARIVS. That which wee call at this day *Ribes*, and the Dutchmen *Saint Iohns Pearle*, because about Midsummer it is garnished with redde and rich berries, hauing a tarte taste, quenching thirst, chiefely, the raging and extreame thirst of feuers, and cooling the stomacke, which the Apothecaries in Suger or Honie keepe all the yeere, is thought it was vnknowen to the olde writers: but now a common bushe vsed for encloasing of Gardens, and making of Borders and Hearbers: it will easely growe, but that it is something troublesome, by reason of his sharpe prickles to be

bent about ſommer houſes.

Hoppes.

THRA. You ſpake euen now of Hoppes, doe you ſet in theſe your pꝛincely Paradiſes, that plant that is ſo common with the Countrey man (about vs they make great gaine of it.

Reade the perfect ordering hereof, in maſter Reynolde Scots booke of Hoppe Gardens.

MARIVS. Tell you therefoꝛe, I pꝛay you how they doe vſe it.

THRA. It is ſet of the yoong ſhootes, as you tolde a little befoꝛe of Liquiriſe, and that in the end of Sumner: oꝛ if they feare a hard winter, in March. The ſets oꝛ ſhootes are cut from the olde rootes, and are ſet in ground well couered with doung and good mould, and afterward hilled, and ſo ſuffered to remaine all Winter. In the ſpꝛing, the earth is ſtirred with Rakes, and not with Spades, and the hilles raiſed, and the ground rid of all hurtfull weedes. About Maie, certaine powles are ſet vp, vpon which the Hoppe climeth: all the ſpꝛay that ſpꝛingeth aboue the flowꝛe, is cõmonly cut off. About September, oꝛ in the end of Auguſt, the flowers oꝛ bels are gathered and kept to make Beere with: when the Hoppes are gathered, the remaines are cut downe cloſe to the ground, and the hilles beyng againe raiſed, are couered with doung. The toppes, and the yoong buds that come firſt out in Apꝛill, are vſed to bee gathered foꝛ Sallets, and keepeth them from growing too ranke. But now I pꝛay you go on, and returne to the deſcription of your Garden. O what excellent Mellons, Pompens, Cucumbers, and Gourdes haue you here, I pꝛay you tell in what ſoꝛt you oꝛder them.

MARIVS. Melons (which ſome, becauſe they are faſhioned like Apples, call Pomes) are of like kinde of Cucumbers, and ſo are the Pepons, which the Frenchmen call Pompeons. The Cucumbers, in Greeke σικυος ἡμερος, in Latine *Cucumer*, in Italian *Cucumero* oꝛ *Cedruolo*, in French and Dutch *Cocumbre*. They chaunge to Pompeons, and Muſkemillions, from which they onely differ in ſhape and greatneſſe: when they exceed in greatneſſe, they become Pompeons, and when they grow round, they are Melonpompeons: all theſe kindes are called of ſome wꝛiters Melons. The Grecians call all the ſoꝛtes, as well Cucumbers as Melonpompeons, by the name of Pompeons and Melons: though there are ſome that make a difference betweene Pompeons and Melons, neither

Cucumbers.

neither doe the learned yet throughly agree vpon these names, nor can it be certainly said what kind the olde writers meant by Pompeons, and Melonpompeons. Ponipeons do creepe along vpon the ground with rough leaues and yellow flowre, and are pleasant to be eaten when they are ripe. The sweetest sorte of them they call *Succrino*, or Mulkemillions. The Melonpompeons are supposed to spring first in *Campania*, being fashioned like a Quince. This kind hangeth not, but groweth round lying vpon the ground, and being ripe, doe leaue the stalke.

Some Cucumbers are called *Citrini*, of their yellownesse when they be ripe, and also *Citruli* or *Citreoli*, they grow all in length, and are spotted as the Citrons are: some be called *Marin*, and be called in Italian *Cucusse Marina*, the seed whereof is to be eaten before they be ripe: they are cut in peeces, and porredge made of them, not much vnlike in fashion to the Mellon. There is also an other kind of Cucumber of a huge compasse, almost as bigge as a bushell: the mowers and Haruest folkes in Italie, vse to carrie great peeces of them to the Field with them to quench their thirst. You must set all these kindes in March, the seedes must bee set thinne, two foote one from an other, in watrie ground well dounged and digged, specially sandie ground: you must lay them in Milke, or water and Honie three dayes: and after drie them and sowe them, so shall you haue them very pleasant. They will haue a verie sweete sauour, if their seedes bee kept many daies among Rose leaues. Your Cucumbers shall be long and tender, if you set vnder them water in a broad vessell, two handfuls vnder them. They delight in water so much as if they be cut off, they will yet bend toward it, & if they hang or haue any stay, they will grow crooked, as also if you set oyle by thē, which they greatly abhorre. The flowers being suffered to grow in Pipes, doe growe a woonderfull length. They loue not the Winter no more then doth the Gourd, whereunto they are almost like in nature, for the flowres, the leaues, and the claspers, are like of them both: but the Gourd is more busie in climming, so that with hastie growth, it spreadeth quickly ouer the hearbs and Summer houses, running vp by the walles, & mounting vp to the very Tiles of the houses, hauing a great fruit of a monstrous bignesse: hanging by a small stalke, in fashion like a Gourdes.

Peare, and greene in collour, although when it hath flowred, it will growe in what fashion you will haue it: they say, there hath bene some of them nine foote in length. The round ones also grow to bee vsed for great vessels: the rinde of the newe ones, is softe and tender, but of the old ones hard, whereof when the meate is out, trauailers make great bottels to carrie drinke in. The Gourdes that are vsed to bee eaten in Summer, are sundry in shape, some are round, some long, some broad: and though the fashion bee diuers, yet the nature is all one: for it is made by art to growe in what shape you will, as in the forme of a creeping Dragon, or what you list, they are called in Greeke κολοκυνθα, in Italian *Zuma*, in Spanish *Calabaz*, in Dutch *Kuirbisch*, & French *Vne courge*. The seedes that the Gourde beareth next to the stalke (as *Paladius* saith) are longest, they in the middest round, and those that lie on the side, short, broade, and flatte: if you set the sharpe end of the seede downewarde, as *Columella* saith, you shall haue them both greater Gourdes and Cucumbers. It delighteth in a moist, rich, well dounged, and well watred ground. That which groweth without water bringes the pleasanter fruite: and that which hath water enough, needs the lesse looking too. The flowers where they be set, must be diggrd a foote and a halfe deepe, the third part whereof must be filled with strawe, and then with good ritch mould: it must be filled to the middest, then the seedes being set, must be watred, till they be sprong, and after, earth laid to them still as they growe, till the Furrow be filled. They must be set thinne, two foot a sunder, it commeth vp in fiue or seauen daies after the setting. Those that are set in drie ground, must be very well watered, therfore they vse to set by them earthen pots full of water, with ragges or cloutes in them to water them. When they be a little growen, they must haue helpes set by them to climbe vpon, the longer they be, the better the meate is. You must beware there come no woman neere where you set them, for their presence doth greatly hurt them. Those that you keepe for seede, you must suffer to remaine vpon the stalke till Winter, and then gathering them, & drie them, either in the sunne or in the smooke, for otherwise the seed wil rotte and perish. They will long be preserued and continue fresh, if after they be gathered they bee put into a close vessell with the Lees

of

of white wine, or hanged in a vessell of Vinegar, so that they touch not the vinegar.

THRA. What meaneth that great Thistell that springeth there?

MARIVS. Did you neuer read in your *Columella* of the Hartichoch, specially in his verses that he wrote of Gardening, where he saith:

Go set the brystled Hartichoch,
That well with wine a grees, &c.

Athenaus in his second booke *Dipnosophus* out of *Sophoclus.*

Κύναρ ἄκανθά τ' ἀκρόκομα πλαδίου λαίας.

A Thistell is the Hartichoch, that euery where doth grow. It is a kind of Thistell, by the diligence of the Gardner, brought to be a good Garden hearbe, and in great estimation at noble mens tables: it is as you see framed with a round prickly head, hauing a great sort of Flakes set in order steeple wise. The Greekes call it κάρδουν and κίναρα, the Latines *Strobilum*, because the fruit of it something resembleth the Pineable. The Frenchmen call it *Alticocalum*, of the *Arabick* atircle *Al*, and *Cocalos* a Pineable, whereof it is corruptly called *Artichault*, in Italian and Spanish *Cardo*, in Dutch, sometime by the French name, sometime *Strobrin*. It is called of *Columella Cinara*, because in his growing, he chiefly delighteth in ashes. The seed is best sowen in March, and the settes in Nouember: if you will haue it yeelde fruit in the spring, you must bestow much ashes vpon it, it will hardly beare the first yeere that it is sowen. Beware that you set not the seede with the wrong end vpward, for so shall your Artichoch proone very litle and euill fauoured: It loueth good ground and well dounged, and prospereth best in fat ground. *Palladius* would haue you moreouer, to set the seedes in well ordered beddes, in the encrease of the Moone, halfe a foote a sunder, & not deepe, but taking them in three of your fingers, thrust them down, till the earth come to the first ioinres of your fingers, then couer them tenderly, and water them often, specially toward Summer, so shal you haue the bigger fruit. When they grow vp, they must be continually weeded & dounged, as I said with ashes. They say, they will loose their prickles, if the tops of the seede be made blunt vpon a stone before they be set: and sweete they will Artichoch.

be

be, if the seede bee laide in Milke. You must keepe them from Mowles and Mise, with Cats or tame Weesels, as *Ruellius* teacheth you. *Athenæus* calleth the stalke of the Artichoch, καυλος, that lieth vpon the ground, and that which standeth vpright, σπυρις.

THRA. Well, what hearbe is yonder same that commeth vp as it were heares, with a blewish flowre and pale, hauing in the middest of the belles, as it were, fierie yellow tongues?

Saffron. *MARIVS.* It is Saffron, in Greeke κροκος, in Latine *Crocus*, in Italian and French so in Spanish *Açafran*.

THRA. What neede we care any more for either *Coricum*, *Sicil*, or *Cyren*, from whence wee fetch it with so great charges?

MARIVS. Yea, there groweth great plentie of it in Germanie about *Spirs*, and diuers other places, which may compare in goodnesse with any other place. It is set in March, of the head that it hath round, and in cloues as the Lillie, the Leeke, and the sea Onyon. *Constantine* affirmeth, that it may be set of the roote, as soone as the flowre is off. The rootes or the heads do so encrease vnder the ground, that of one of them some yeere springeth eight or nine others. In many places they are remoued euery seauenth or eight yeere into bitter ground, whereby they come againe to be as good, as at the first. In the Countries lying about the Rhine, they plucke them vp euery third yeere, and lay them a drying in the Sunne till August, and then pulling off the outer skin, they set them againe halfe a foote one from the other: the best heades are those that are fattest, & haue little heares, the worst looke rottenly and ill fauoredly, and haue an ill sauour: It delighteth to grow by heigh waies and neere springs, and to be trode and trampled on, prospering as it were by oppression: it groweth greene all the Winter, it is gathered in Autume, when it is come to his colour, by plucking out the little yellow toongs from the bell, which are afterwardes dryed three or foure daies together, and well picked and pourged, and so made vp in Boxes: some thinke it best to drie it in the shadowe. It is craftily counterfeited by the Apothecaries, braying it in sodde wine, which they besmeare, adding thereto the scum of siluer or lead to encrease the weight, the craft is perceiued by the dustinesse thereof, and by the sauor of the sodde wine.

The

The proofe of the good is, if it crackle betweene the hands as a brittle thing, which the counterfait doth not, or if in putting it to your mouth, it cause your eyes to water. Wherefore, the best is that which is new, and hath a pleasant smell, in colour like to Golde, and dieth the fingers in touching it. In March you must pourge the ground where it groweth, and whether ye plucke it vp or not, notwithstanding, other hearbes may very well growe there vntill August: Purslaine, Parsley, or such like hearbes doe best growe there. And when the Saffron beginneth to flowre, you must rid away the other hearbes: for in Harueste time about September or October it flowreth.

THRA. Here is great store of Rosemarie, the chiefest beautie of Gardens, and not to be wanted in the kitchin. Rosemary.

MARIVS. Of the ordering of Rosemarie, sith you will haue me, I will speake a little. There are which suppose it to be the same which the Greekes call λιβανωτὸς, because it sauoureth like Frankencense, in Latine it is called *Rosmarinus*, and in all other tongues it keepeth the name, it serueth both for pleasure and profite. *Theophrastus* maketh two kindes of it, a barrayne, and a fruitfull, and is set of small slippes in Aprill: it is sette by women for their pleasure, to growe in sundry proportions, as in the fashion of a Cart, a Peacok, or such like thing as they fansie. It delighteth in stonie or rough ground, and in the topps is the seed incloased in little huskes white and round. It flowreth twise a yeere, in the Spring, and in the end of Sommer: it is gathered from May till September, and it is good to plucke off the flowre often, that it may not flowre too much. In the higher partes of Fraunce it groweth wilde in such plentie, that they vse almost no other fewell: it is in colde Countries in Winter set in Sellers and hotte houses, and is brought againe in the Spring into the Garden. But heere you must beware, that when you first bring it out, you keepe it from the March sunne, setting it in the shadowe, acquaineing it by little and little with the ayre: some vse to house it with Strawe and Horse doung, and so leaue it in the Garden. Sauge in Greeke λαβρόσηλινον, in Latine *Saluia*, and like in other languages, is an hearbe common in euery Garden: it is planted both of ỹ seede & of the slip in March, in any kind of ground, it maketh no matter where: the Gardners vse to Sauge.

lay

lay bucking ashes about it, whereby it prospereth the better. Next
Mints. to Sauge is Mint, in Greeke μίνθη, in Latine *Mentа*, in Dutch *Myntz*, in Italian and French, after the Latine, in Spanish *Yerua buena*: it is planted and ordered in all thing as Sauge is, it prospereth both in drie, and wet groundes, and groweth well by waters. If you lack seedes, you may take the seede of the wilde Minte, and set them with the tops downeward, whereby they shall leaue their rankenesse, and beeing once sowen or sette, groweth euerie yeere.
Pimpernell. Pimpernell, in Greeke τετράφυλλον, in Latine *Pimpinella*, is vsed both in the Kitchin, and in Phisike, and being once sowen, groweth euery yeere both in sunnie places, and in shaddowy: it groweth in most
Hyssop. places wilde. Hyssope, in Greeke ὕσσωπος, in Latine *Hissopus*, and so called in most tongues in Europe, a common hearbe knowen to euery Gardener: it desireth, though no Sunnie ground, yet good and rich ground, it is planted both of the seede and of the slip: when it hath once taken roote, it careth not for the sharpnesse of winter.
Sauorie. Sauorie in Greeke θύμβρα, in Latine *Satureia*, or as *Columella* saith, *Cunila*, in Italian *Coniella*, *Sauoreggia*, *Thymbre*, in French *Sauoreie*, in Dutch *Knuelzwibel hisop*, groweth in barrayne places, and is set and sowed as the plants before. The next is that which
Basyll. commonly is called Basyll, in Greeke ὤκιμον, in Latine *Ocymum*, in French, Italian, and Dutch, *Basilica*: an Hearb that is vsed to be set in the middest of knots, and in windowes, for the excellent sauour that it hath: it is also good for the pot: it is sowed in March and Aprill, and delighteth in sunny ground, you must put two seedes still together. Basyll is best watred at noone, whereas all other Hearbs are to be watred in the morning and in the euening, it may be remooued in May. *Theophrastus* sayeth, that it
Marierum. prospereth best, when it is sowed with curses. Marierum, in Latine *Amaracus*, and *Maiorana*, is also in like sort vsed, the Dutch and the Italians call it after the Latine, the Spanyards *Amoreduxe*, the French *Mariolaiene* and *Thyn*, in Greeke of *Dioscorides* and *Paulus Aegineta* σάμψυχον, this also for the pleasant sauour it hath, is set in pottes and in Gardens: it is sowed in March three or foure seedes together, and halfe a foote asunder, in May when it groweth to some height as Basyll: it is remooued. Time neere of
Tyme. kindred to these, in Greeke θύμος, in French, Italian, and Dutch,

like

like the Latine, in Spanish *Tomillo*, delighteth in stonie, light, and sunny ground: it springeth both of the seede and of the slip, and also of the flowre as *Theophrastus* saith, These three tender and delicate Hearbes, are to be sowed with great heed, either in earthen pottes, or in Garden beddes. Hitherto haue I described vnto you such Hearbes as serue for the kitchin, and because the latter sorte are also esteemed for the sauours, I will goe forward with the description of the rest that are set in Gardens for the pleasure of them, and for the sauour, doe garnish the said Gardens, and serue also for other purposes. Of Rosemarie, I spake before, I will now proceed with these that grow before my feet. Lauender, called in Latine *Lauanda*, or *Lauendula*, that groweth in borders about ẏ beds, in Greeke νευδηφδε, and keepeth the Latine name in other toongs, doeth growe in wilde places and stonie: it is set of the slippes, and remooued: it groweth to Spike in June, and in July is gathered and tied in bundels for the sauour, the flower is distilled for sweet waters. Flowre gentle, in Latine *Amaranthus*, in Greeke ἀμάραντος, though it haue no sauour at all: yet hath it a delightfull beautie to the eye, the Frenchmen for the faireneſſe of the colours, excelling both Crimson and Purple in graine, doe call it *Passeuelleurs*, the Italians *Fiorueluto*, because it contendeth in colour with Crimson in graine, it loueth to bee often gathered and plucked, whereby it springeth the better, the flowers after they be dead, with a little water come againe to their colour: it is called *Amaranthus*, because it dieth not.

Lauender.

Flowre gentle.

THRA. Here foloweth Lauender cotten.

MARIVS. This Lauender cotten: in Greeke is called as *Plinie* supposeth χαμαιπιτυδεμον, as it were the little Tipres, some call it *Santonia*, and female Southernewood, in Dutch it is called *Cypressen*, in French *Cyprez*, it groweth commōly in Gardens, springing euery peere. Myrtell, in Greeke μυρσινη, in Latine *Myrtus*, in Italian *Myrto*, in Spanish *Arabian*, in French *Meurte*, in Dutch *Welscheheidelberr*, the leaues are not much vnlike to the leaues of the Oliue tree, somewhing smaller, with slender braunches, and leaues growing in order one by another as you see, with black berries, and leaued like the Pomegranate. It groweth alwayes greene, it is set and sowed both of the seed and slippe, and the stocke: but

Lauender cotten.

Myrtell.

but you must still rayse vp the earth about it: till it be throughly rooted. Some sow the berries beyng a little beaten, and couered in Furrowes of earth: it delighteth in continual weeding, so groweth it to a handsome height, meete to shadowe hearbes: it loueth to bee watred with the vryne of men, or of sheepe. This onely is to bee wondred at, that of the liquor thereof alone, may bee made all sortes of wine and Oyle, *Cato* teacheth to make Wine of the berries, beyng dried, and put in water and hony sodden together: if they be not dried, they come to Oyle, how the Wine of them is made, *Dioscorides* sufficiently declareth. *Plinie* reporteth, that *Cato* made three sortes of Myrtels, white, blacke, and a third kind that he calleth coniugale: it delighteth to growe by the Sea bankes, as *Seruius* saith, it groweth at this day commonly in Italie, along by the Sea coasts.

Gelliflowers. *THRA.* Oh what sweet and goodly Gelyflowres are here: You may truely say, that Solomon in all his princely pompe, was neuer able to attaine to this beautie: some of them glitter with a perfect crimson die, some with a deepe purple, and some with a passing beautifull Carnation: I meruaile the old writers knew nothing of these in their time.

MARIVS. There are some that suppose to be a kind of Garden betony, which the Gardner fetching out of the field, and thrusting Cloues into the rootes of them, with diligent planting haue brought to this excellency: others thinke it to be called *Vetonica* of the Spaniards, who first found it. Some thinke it to be *Oenanthe*, because it flowreth with the Vine: it delighteth in warme sunnie ground, it is sowed seldome of seed, but commonly set of the slips, as I said of Rosemarie. The Gardners in the end of Summer, do take the rootes and set them in pannes, pots, or pailes, and when the frosts come, they carry them into their Sellers, and in faire warme daies bring them abroade againe, and suffer them to be now or then watred with the raine. It hath bene often seene, that in such vaults or sellers, they haue flowred all the Winter long, through warmenesse of the place: some set bowes about them, and couer them with straw and Horse doung, to preserue them against the cold: it often happeneth, that one Roote beareth one yeere white flowre & redde, and the third speckled or Carnation.

THRA.

THRA. Loe, yonder are Roſes growing in Bozders, & made in amaze: do they grow of the ſeede, oz of the ſette?

MARIVS. Roſes, called in Greeke ῥόδον, in Latine *Roſa*, and in all other languages as in Latine, are diuerſlie planted, ſometime of the Rootes ſometime of the Bzanches, beyng cutte in ſmall ſettes, and planted a foote a ſunder. Some wzeath them in Garlands, and ſo ſette them to haue them ſmell the pleaſanter. The vſe of ſowing of them is beſt: how be it, they will very well grow of the ſeede, though it bee long ere they ſpzing, and therefoze they ſet them of ſettes a foote in length, it neyther delighteth in riche oz moyſt ground, but as well contented to growe amongſt rubbiſhe, and vnder walles. The places where thy muſt growe, muſt bee digged deeper then Cozne ground, and not ſo deepe as the Vineyard: the Roſe is rather a Thozne then a plant, and groweth vpon the very bzambles: it commeth firſt out in a little budde and long ſharpe beard, which after they bee opened, it diſcloſeth it ſelfe and ſpzeadeth abzoad, with a yellow hearie tuſke in the midſt. *Plinie* maketh mention of ſundzy ſoztes of them: one ſozte he calleth *Mileſia*, hauing an Ozient and fierie colour, an other *Alabandica*, with white leaues, and *Spermonia*, the baſeſt ſozte of all: the Damaſke and the White, are vſed foz ſweet waters: they differ in roukneſſe, pzickles, colour and ſmell. There are that haue but onely fiue leaues, and others with an hundzed leaues, neyther good in beautie noz in ſmell: the roukneſſe of the rinde (as *Plinie* ſaith) is a ſigne of the ſauour. There are ſome little pale ones called Carnatiõ and Pzouincars, theſe do wonderfully grow where they once are planted, and haue a moſt excellent ſauour. Roſes are vſed to be ſet in Febzuarie, which is either done with the ſeede, oz the ſette planted in little Furrowes. The ſeedes (as *Paladius* ſaith) are not the little yellowe things in the middeſt of the Roſe, but the graines that growe within the Redde riped Berrie: the ripeneſſe whereof is deemed by the ſwarthineſſe and the ſoftneſſe of the berrie: where they once are planted, they continue long, and after they die, they ſende out newe Buddes and Spzunges. If you lacke ſettes, and would of a fewe haue a great number, take the bzanches that begin as it were to ſhewe their buddes, and cutting them in ſundzy ſets, foure oz fiue fingers in length, ſet them in good ground well

Roſes.

Muſke Roſes.

dounged

dounged and watred: and when they be of a yeeres growth, take them vp, and set them a foote asunder, proine them and trimme them with often digging about them. Roses must still be cut, for the more you cut them, the thicker and the doubler they growe, otherwise they will ware single and wilde, it will also do them good sometime to burne them: beeing remooued, it springeth very soone and well, beeing sette of sets foure fingers long and more, after the setting of the seauen Starres, and after remooued in a Westerly winde, and set a foote asunder, and often digged. The olde Rosyars must haue the earth looſed about them in Februarie, and the dead twigges cut off, and where they ware thinne, they must be repayred with the young springes. To haue Roses of fiue sundry colours vppon one roote, make when they begin to burgen, a fine hole beneath in the stocke vnder the ioynt, and fill it with red colour made of Brasell sod in water, and thrust it in with a clouth, and in the like sort put into an other part of the stock greene colour, and in an other yellow, and what other colours you will, and couer the holes well with Ore doung and Lome, or very good earth. If you will haue your Roses beare betimes, make a little trench of two hand breadthes round about it, and powre in hote water twise a day, and thus dooing (as *Democritus* promiseth) you shall haue Roses in Januarie. You may preserue Roses before they open, if making a slit in a Reede, you enclose the blossome, and when you would haue fresh Roses, take them out of the Reedes: others put them in Earthen Pottes close couered, and set them abroad: the Roses continue alwayes fresh that are dipt in the Dregges of Dyle. If you will haue them at all times, you must set them euery month, and doung them, and so (as *Didymus* sayth) you shall haue them continually. To cause them, or any other flowres to growe double, put two or three of the seedes in a Wheat strawe, and so lay them in the ground. If you set Garlike by your Roses, they will be the sweeter: the dryer the ground is where they growe, the sweeter they will be, as it appeareth by the season of the yeere, for some yeeres they are sweeter then others: the Rose will be white, that is smokt in with Brimstone, whē it beginneth to open: amōgst all Roses, those are most to be cōmended, that they call Carnations and prouincials. The Dile of Roses was greatly had in estimation

euen

euen in *Homer* his time, and at this day the Vineger of Roſes is greatly vſed. Next vnto the Roſe in worthineſſe, for his ſauour and beautifull whiteneſſe is the Lillie, called in Greeke κρίνον and λείριον, in Italian *Giglio*, in Spaniſh *Tirio*, in Frēch *Fleur de Lis*, in Dutch *Lilien*. The Greekes hold opinion: that it ſprange firſt of *Iunos* Milke ſprinkled vpon the ground. In Februarie we beginne to ſet Lillies, or if they grew before, to looſe the earth about them with a rake, taking good heed that the yoong tender ſhootes about the root be not hurt, nor the little head, which taken from the old root, wee ſet for new Lillies. As the Roſes are, ſo are the Lillies, the ſweeter, the drier the ground is where they grow: Lillies and Roſes being once ſet, continue both very long. There are red Lillies made ſo by arte, for they take the ſtalkes and roots of the Lillie, and hang them in the ſmoke till they wither, and when the knots begin to vncouer, they are laid in March in the Lees of red wine, till they be coloured, and then ſet in the grouṅd, with the Lees powred about them, ſo will they come to be purple. Lillies.

Violet in Greeke is ἴον, in Latine *Viola*, Violets.
Violet blacke, and Violet purple, ἴον μέλαν, καὶ ἴον πορφυροῦν, in Italian it is called *Viola porporia*, in Spaniſh *Violetta*, in Frēch *Violets de Marts & Careſme*, in Dutch *Fiolen*: theſe although they grow wild about euery Hedge and Wall: yet are they ſet in Gardens with other flowres.

There are ſundry ſortes of Violets, both of kinde and colour, but the ordering of them is in a maner all one.

THRA. I haue now heard enough of Kitchin hearbes and flowres, therefore now, I pray you, let me heare you ſay ſomething of the third ſort, that is Phiſicke hearbs, for mee ſeemeth I ſee a great ſort of healing hearbs here in your Garden.

MARIVS. Nature hath appointed remedies in a readineſſe for all diſeaſes, but the craft & ſubtiltie of man for gaine, hath deuiſed Apothecaries ſhops, in which a mans life is to be ſold & bought, where for a litle byle, they fetch their medicines from Hieruſalem, and out of Turkie, while in the meane time euery poore man hath the right remedies growing in his Garden: for if men would make their Gardens their Phiſitians, the Phiſitians craft would ſoone decay. You know what your old friend *Cato* ſaith, & what a deale of Phiſicke he fetcheth out of a poore Colwoort. It is but the opinion of a Gardiner.

THRA. I doe remember it, and that he saith he was woone both to helpe himselfe, and his whole familie, with the hearbes of his Garden. But what hearbe is yonder with the long stalke, and the long blacke indented leaues on the toppe? If I be not deceiued it is Bearefoote, with whose roote we vse to heale our cattell when they be sicke.

Berfoote or Setterwort.

MARIVS. It is so indeede, and is called in Greeke Ἑλλέβορος, in Latine *Veratrum*, there are two kindes of it, the blacke and the white: the White, is that which the Dutchmen call *Nysswurts Wranckraut*, the Blacke they call *Kristwurts*, because it flowreth about Christmasse: the Italians, the Spaniards, and the Frenchmen keepe the Greeke name. The roote of the Bearefoot they thrust through the eare, or into the brest of the beast, that is either diseased in his longues: or hath the Murren. *Columella* seemeth to call it *Consigilla*, it groweth not in Gardens, except it be sowed, it continueth long, and loueth cold and woodie ground. There stands, not farre from that, an other very noble hearbe in Philicke

Angelica.

called *Angelica*, it is supposed to be called in Greeke μύρρις, and whether it be *Myrrhis* with the Latines or no, I leaue that to the Philitians to discusse: it is called with the Italians, Spaniards, Frenchmen, and Germanes *Angelica*. His roote, because it is a soueraigne remedie against the plague, and hath diuers other good operations, it is cherished in our Gardens, and being once sowed, it commeth vp euery yeere, it groweth also wilde in the mountaine countrey, and flowreth in July and August. Here is also Helicampana, in

Helicampana.

Greeke Ἔλενιον, in Latine *Ennla*, in Italian *Enula*, in Spanish *Enula campana*, in French *Aulne*, in Dutch *Alant*, this also is set in our Gardens for medicines sake, and we make much of it for the roote, it groweth wild in the hilly countries, and dry shaddowy places. In Summer the roote is taken out of the ground, and cut in smal peeces, it is dried: at this day it is called *Enula cãpana*, it hath a yellow flowre, a leafe like Mullin, but white and hoarie at the one side. Wormewood, though it grow in euery place, yet this that you see here is Romane or Pontike, Wormewood, the Latines call

Wormewood

it *Cerephium*, or *Absinthium Romanum*, the Dutchmen *Romische wermut*, the Italians *Assenso*, the Spaniards *Encanfos*, the Frenchmen *Aluine* and *Absince*, this kinde is sette in our Gardens, and

thought

thought to be the best. Sauine which wee haue here also in our Gardens, for diuers diseases of cattle, is called in Greeke βρόσιμον, in Latine *Sabina*, in Dutch, *Seuenboum*, in Italian as in Latine, in Spanish likewise, in Frenche *Sauinier*, it hath leaues like Juniper or Cypres, alwayes greene, there are two kinds of it, one like the *Tamariske*, the other like Cypres: it is a bush rather spreading in breadth, then growing in height: the berries which he beareth, may be gathered in the end of Summer, or any other time. Sauine.

THRA. But many times we see gardens to be destroied with wormes and vermine, what remedy haue you for this?

MARIVS. Of the faults of the ground, & the remedy thereof, as the amending of either too much moisture or drinesse: I spake in the beginning, touching wormes, flies, & other vermine that annoy the gardens, which for the most part are these, caterpillers, snailes, moles, mise, gnats, and Antes. There are that say, that if you mingle with your seeds soote, or the Juice of Houseleeke, or Singreen, the Caterpillers will not meddle with the hearbe that springeth of such seed: and that they will do no harme to your trees, if you sprinkle them with the water wherein the ashes of Vines hath bene laid: moreouer the stalkes of garlike made in bundels, & burnt in Orchards or gardens, destroieth the Caterpillers. They will not breed (as they say) if you burne about the rootes of your hearbes or Trees, quick brimstone & lime: the same they report of Lie made of the fig tree, Ants wil not annoy your corne or hearbs, if you encompasse it round with chalke, or put into their hils, the ashes of burnt Snayles, and if some of them be taken and burnt, the rest will not come neare the sauour: if Assa foetida be laid in Dyle, and powred vpon their hilles, it vtterly destroieth them, they will not touch the trees nor the hearbs, if you annoint the stalkes with bitter Lupines, or lime laid with oyle. You must shake of the Caterpillers in the morning, or late in the euening when they be numbed: also water wherein Dill hath bene sodden, cast about in the orchard when it is cold destroieth them. It is written, that if you set Chiches about your garden, Caterpillers will not breed, and if they be already bredde, you must seeth the iuice of Wormewood, and cast among them. The doung of Bullocks burnt vpon the coales, destroyeth gnats: the like also doth brimstone: a sponge wet with vinegar and hanged Against Caterpillers. Gnattes.

hanged vp, draweth also swarmes of Gantes vnto it: also the maw of a Sheepe newe killed, not washed nor made cleane, if it bee laid in the place where Mothes, or other such Vermine doo vse, and couered a little the vpper part, you shall after two daies, finde all the noysome Vermine crept into it: thus must you do twise or thrise, till you thinke you haue destroyed them all. Of killing and driuing away Moles, *Sotion* the Greeke writeth, that you must take a Nut, or any like fruit, and making it hollowe within, fill it vp with Chaffe, Rosen, and Brimstone, afterward stop the vent holes that the Mole hath in euery place, that the smooke breake not out, onely leauing one open, where you shall lay the Nut, in such sort as it may receyue the wind on the backe part, that may driue the smooke into the Mines, there are also trappes to be made, for the destroying of Moles: a frame is to be set vpon the newe Hilles, with a peece of wood so hollow and framed, that it may receiue (as it were in a Sheath) an other peece of wood made in fashion like a Knife, to this is ioyned an other little sticke that lieth in the hole, and is fastned to a Catche without, that as soone as the Mole toucheth the sticke within, shee is taken presently, as it were with a payre of Sheares. Mise are taken, if yee powre into a platter, the thickest mother of Oyle, and set in the house a night, as many as come at it, are taken: also the roote of Bearefoot mingled with cheese, bread, flowre, or grease, killeth them. Tarte and very sharpe Vinegar mingled with the iuice of Henbane, and sprinkled vpō the Hearbs, killeth the Fleas, or little blacke wormes that be in them. No kind of vermine will annoy your Hearbes, if you take a good sort of Crestches, and cast them in an earthen vessell with water, suffering them to worke abroad in the Sunne for the space of tenne dayes, and after with their licour, sprinkle your Hearbes. But I keepe you long in this ill fauoured Garden, if it please you wee will walke into the Orchard adioining.

Moles.

Mysse.

Garden Fleas.

THRA. With a very good will, although the goodly faire colour and sweete sauours of these hearbes & flowres, beside the fayre hedges inclosing it as it were with a gorgeous greene tapestry, make me that I could abide here euer.

Of Orchards.

MARIVS. Both the Garden and the Orchard are inclosed with seuerall hedges and ditches, whereby they are defended from

hurtfull

hurtfull beasts and vnruly folks (as I told you at the first) when I began to speake of the enclosing of Gardens and Orchards.

THRA. Euery thing liketh mee passing well: Good Lord what a pleasant ground, what a Paradise is this? mee thinkes I see the Orchardes of *Alcinous*, the trees are set Checkerwise, and so catred, as looke which way you will, they lie leuell: King *Cyrus* himselfe neuer had better. If *Lysander* had euer seene this orchard, hee would haue woondred a great deale more, then he did at *Cyrus* his Orchard.

MARIVS. Such gorgeous gardens & Orchards as Princes haue, I neither desire, nor meane to counterfeyt: but vsing the diligence of a poore countrey Gardner, I build (as they say) my walles according to my wealth. I framed the order, and set the most part of these trees with mine owne hands, following herein, the fathers of the old time, who delighted themselues chiefly with this kind of Philosophie. So then (as I thinke) the Trees and Woods to be the greatest commoditie giuen to men: for besides the house pleasure that they minister vnto vs, the gracious Lord, that is the giuer of all good thinges, hath also giuen vs a number of other goodly commodities by them, which at the first serued men for food, couering, and clothing: which commodities, the very Ethnicks had in estimation. But vnto vs that know God, by whom we haue receiued our preheminence aboue all other creatures, which benefite we ought with thanks to acknowledge, the holy Scripture doth teach a more higher and mysticall consideration: for before that gracious Lord had framed man, willing to prouide him of food and apparell, he caused all kind of pleasant Trees bearing fruite to spring out of the earth, that they might serue for the sustenaunce of man: and in the midst lye planted the Tree of lyfe: and thereby, the Tree of knowledge of good and euill: to the end that *Adam* might haue an assured signe of his dutie and reuerence towardes God, out of which the Lord (as in a Temple did speake vnto *Adam*) and *Adam* himselfe, if hee had continued in his innocencie after his refection of the Tree of life, had with his posteritie preached God, and alwaies beene thankfull vnto him: for his authoritie giuen vnto him ouer all other creatures, as the Prophetical Psalmist singeth. This that thorowe the bountifull liberalitie

of God was giuen vs to so good an end, the vngodly and wicked posteritie turned to Idolatrie, consecrating both Trees and groues, to the Idols of the Heathen.

THRA. What? meethinks you begin to play the Preacher with me.

MARIVS. Surely, there is no better a place to preach in then here, to acknowledge the Creator in his creatures, & by these visible workes: to beholde the Almightie and euerlasting power. blessednesse, bountifulnesse, and Godhead, of the incomprehensible workeman, and alwaies to speake and preach of them: but I will say more hereafter. The planting of trees doth out of all doubt (as I sayd) bring vnto vs both profite and pleasures: and therefore this part of husbandry, must not be neglected, for *Columella* accounts it one of the chiefest points of husbandry, which the Poet seemes to agree vnto.

Of tyllage all this while, and of the starres,
Wee heere haue talked.
And Bacchus now of thee I meane to sing, &c.

THRA. I pray you then declare vnto mee, the order of planting and preseruing of Trees.

MARIVS. Let vs first sit downe vnder the shadow of this faire Vine, that yeeldeth both pleasant Wine, and comfortable shadow.

THRA. Agreed.

MARIVS. The sorts of Trees are diuers & manifold: some growe wilde, some come of the seede, some of the roote, as the selfe same Poet saith.

Some sortes there are, that of the seede are sowne,
And some that set of rootes, to seedes are growne.

Some doe grow and spring of themselues: a number of others againe are to bee sowne. Those that growe wilde without the labour of man, do beare their seedes each one according to his kinde: but those that are set and drest, doe yeeld greater encrease. There are diuers againe that are alwaies greene, and doe neuer loose their leafe, which are (as *Constantine* reporteth) these, the Date, the Orenge, the Lemon, the Cytron, the Bay, the Oliue, the Cypresse, the Pine, the Hollie, the Boxe, Myrtill, Cedar, and Iuniper. As for

strange

ſtrange Trees, and thoſe that will grow no where but at home, we will not meddle with all: wee will therefore begin firſt with thoſe that yeeld vs ſuſtenance, and beare fruit, and thoſe are diuided into three ſortes: for either of the ſets they come to be Trees as the Oliue is, or elſe ſhrubs as the wilde Date, or neither Tree nor ſhrub as the Vine.

THRA. I deſire to heare your opinion of euery ſort, for I thinke it no ſmall ſkill to plant ſuch faire Gardens, Orchards, and Vineyards. Me thinkes you haue vſed a woonderfull good order, that amongſt your Vines, you haue entermedled Oliue trees, Fig trees, Almonds, and Apricocts, and that you haue ſeuered your Orchard from your Garden, and your Vineyard from them both, with faire hedges and ditches.

MARIVS. It was needefull ſo to doe, leaſt my folkes labouring in ſome of them ſhould come into the reſt, contrarie to my pleaſure. Firſt if you will, I will ſpeake of thoſe that bring vs fruite, and then of the wilde, and the order of ſetting and planting of Woods. Firſt (as *Columella* ſaith) that ground that ſerueth for an Orchard, will ſerue for a Vineyard, as you ſee it doth here: and if the ground be hilly, rugged, and vneuen, it is more meete for a Vineyard then for an Orchard. If therfore you will make an Orchard, you muſt chooſe ſuch a ground as is meete for it: a riche ground, leuell, and lying vpon the Sunne, which when you haue found, you muſt well encloſe it: as I taught you before in the encloſure of Gardens, that it may lie out of daunger of Cattell and knaues: for although that the trampling, and dounging of Cattell, is not vnprofitable to the Trees, yet if they bee either bruſed or broken whiles they be yoong, they will ſoone come to nought. Whē you meane to dreſſe your Orchard place thus fenced, you ſhall make your furrowes a yeere before you plant them, ſo ſhall they be well ſeaſoned with the Sunne and the rayne: and what ſoeuer you plante, ſhall the ſooner take. But if you will needs plant the ſame yeere, that you make your furrowes, let the furrowes be made at leaſt two monethes before: after fill them full of ſtrawe, and ſette it on fire. The broader and wider that you make your furrowes, the fairer and more fruitefull will your trees be, and the fruit the better. Your furrowes muſt be made like an ouen, or furnace, wider at

How to make an Orchard.

the bottome then aboue, that the roote may spread the better, and the cold in Winter, and the heate in Summer, may the better bee kept from it, and also in steepe grounds, the earth shall not so easely be washed away. In setting of our fruite trees and Vines, you must place them in order, either Checkerwise, or Netwise: which needfull order of setting, is not onely profitable by receiuing the ayre, but also very beautifull to the eye: when as, which way soeuer you looke, you shall see them stand in ranke, and which also is to good purpose, the Trees shall equally receiue their moisture from the ground.

THRA. I see the Gardners in euery place obserue this order, setting their Trees in such proportion, as which way so euer you looke, your eye shall not be let, but shall see the Trees stande streight in order.

MARIVS. I haue vsed two sortes of this catred order, one wherein my Trees stand foure square like the Chequer or Chesseboord: the other not in square as the first, but Losing wise or Diamond wise like the glasse windowes or Nettes. You must frame it according to the nature of the trees, least the lower sort be drowned of the higher. You must also set them a good distaunce a sunder, that their branches may spread at pleasure, for if you set them to thicke, you shall be able to sow nothing betwixt them, and they will be the lesse fruitfull. Therefore *Palladius* would haue the space betwixt them, thirtie foote at the least: there is more profite in the generall disposing of them, entermedling the greater with the lesser, so as the great ones do not annoy their vnderlings, either with their shadow or dropping, for that they grow not equal to them in strēgth or bignesse. Pomegranates and Myrtles must be sowed neerer together, as nine foote a sunder, Apples neerer then they, and Peares neerer then them both, but of them there are sundrie sortes, Almonds and Figge trees, must also be set neerer. And because there is a naturall friendship and loue betwixt certaine Trees, you must set them the neerer together, as the Vine and the Oliue, the Pomegranate and the Myrtell. On the other side, you must set farre a sunder, such as haue mutuall hatred among them, as the Vine with the Filbert and the Bay. There are some of them, that desire to stand two and two together as the Chestnut: the droppings also do great

Dropping of trees.

Friendship amongst trees.

great hurt of all sorts, but specially the droppings of Oakes, Pine-trees, and Wallnolmes. Moreouer, the shadowes of diuers of them are hurtfull, as of the Walnut tree, whose shadow is vnholsome for men, and Pine tree that killeth young springes: yet they both resist the winde, & therefore are best to be set in the outer sides of the Orchards, as hereafter shall be said. Of the place and the order, perhaps you thinke I haue said enough: and looke that I should proceede to the order of planting and setting. Shadowes of trees.

THRA. What time is the best for planting and setting of trees?

MARIVS. The chiefest time of planting (as *Florentine* saith) is the end of Sommer, for then is nature most occupied about the roote, as in the spring about the vpper partes: and therefore grafting is meetest in the spring, and setting in the ende of Sommer: for the plants are watered all the Winter, and therefore it is best setting or planting, from the setting of the seauen starres, vntill the twelft of December. In the Spring time, you may set those thinges that you forgat before, at what season soeuer it be: looke that you set them in the afternoone, in a faire westerly winde, and in the wane of the Moone. *Plinie* saith, that this note is of great importance for the encrease of the Tree, and goodnesse of the fruite. If the Tree be planted in the encrease of the Moone, it groweth to be verie great: but if it be in the waine, it will be smaller, yet a great deale more lasting. Time of planting. Time for Grafting. The obseruation of the Moone.

THRA. But are there more waies then one of Planting and setting?

MARIVS. A great sort: wee plant either by Grafting, setting of the kernell, or the stone, setting the rootes, stockes, or slippes, grafting betwixt the barke and the tree: some are planted in some of these sorts, others in all. In Babilon (as they say) onely the leafe set, comes to be a Tree, first I will speake of Grafting, and then of the rest. There are that appoint but three kindes of Grafting, betwixt the barke and the woode, in the stocke, and implastring, or inoculation. The first sort they call Grafting, the second imbranching, the third inoculation, or imbudding. Such trees as haue thickest barkes, and draw most Sappe from the ground, are best grafted betwixt the barke and the wood, as the Figge, the The kinds of planting, and graffing of Trees. Three kinds of Graffing. What Trees are best to be grafted betwixt the bark and the wood.

Cherie,

Cherie, and the Olive: those that haue thinne rindes, and content themselues with lesse moisture, as if the Sappe leauing the barke, should gather it selfe to the hart, as the Orenge tree, the Apple tree, the Vine, and diuers others, in these it is best to open the stock, and graffe in the woode. Some Trees are also best Graffed vpon other some, the Figge that prospereth best vpon the Mulbery stock, and the Plaine tree: the Mulbery vpon the Chestnut, & the Beeche, the Apple, the Peare, the Elme, and the white Poplar, wherein if you Graffe, you shall haue your Mulberies white: vpon the same stocke are Graffed the Peare, the Quince, the Medler, and the Seruisse: the Peare vpon the Pomgranate, the Quince, the Mulberie, and the Almon. If you Graffe your Peare vpon a Mulbery, you shall haue redde Peares: the Apple is Graffed vpon all Peare stockes, and Crab settes, Willow, and Poplar: being Graffed vpon the Quince, it bringeth foorth the fruite which the Greekes call *Melimella*: it is also Graffed vpon the Plomtree, but being Graffed vppon the Plaine tree, it bringeth foorth redde Apples. The Medlar being Graffed vpon the Thorne, the Graffe groweth to great bignesse, but the stocke continewes small: vpon the Pine tree, it bringeth a sweete fruite, but not lasting. The Peach graffed in the Thorne, or the Beeche, groweth to be verie faire, and great: the Almond and the Peach being ioined together, and Graffed in the Plomtree, will beare a Peach with an Almond in the stone. The Filbert will onely be graffed in the Wilding, nor agreeing with any other. The Pomgranate delighteth in diuers stockes, as in the Willow, the Bay, the Ashe, the Damson, the Plome, and the Almond, vpon all which he prospereth well. The Damson groweth very well vpon any kind of wild Peare, Quince, and Apple: The Chestnut liketh well the Walnut, and the Beech. The Cherie refuseth not the companie of the Peach, nor the Turpentine, nor they his: the Quince will well be graffed vpon the Barberie: the Pirtle vpon the Sallow: the Plom vpon the Damson: the Almond vpon the Filbert: the Citron, because of his tender Tree, and thinne rinde, will scarsely beare any other graffe, and therefore contents him selfe with his owne branche. The Vine that is graffed vpon the Cherie tree (*Florentinus* promiseth) will beare Grapes, and graffed vppon the Olive, will bring

What Trees agree best together.

To haue red Peares and Apples.

A Peach with an Almond in it.

bring foorth a fruit that bearing the name of both his parents, is called *Eleoſtaphilos*. In ſine, all young Trees that haue ſappe in the barke may be Graffed: if it be greater, it is beſt Graffing neere the Roote, where both the barke and the Wood, by the reaſon of the neerenesſe of the ground are full of Sap. He then that will graft either in the ſtocke, or betwixt the ſtocke and the rinde, let him gather his graffes from a fruitfull tender tree, and full of iointes, and out of the new ſpring, except he meane to Graffe an olde tree, when as the ſturdier graffes be the better they are, otherwiſe the laſt ſhootes of ſuch trees as haue lately borne will be the beſt. You muſt gather them on that ſide the tree that lieth vpon the North, others like better the Eaſt ſide then the ſhaddowie. *Virgill* forbiddeth thoſe that growe vpon the top, thinking them better that growes out of the ſide. To be ſhort, your Graffes muſt be full of buddes lately growne out, ſmooth, the rinde ſmooth, good, and readie to growe: they muſt bee of the laſt yeeres growth, which is knowne by the knottes or ioyntes, that declare euery yeeres growth: Beſide, Graffes of all Trees are not to be gathered alike: for Vines and Figge trees are dryeſt in the middle partes, and take beſt of the top, and therefore frō thence you muſt gather your graffes: Oliues are fulleſt of Sappe in the middeſt, and the outer parts dryeſt. Thoſe beſt agree together, whoſe rindes are neereſt of nature, and doe bloſſome, and beare both about a time. You muſt gather your Graffes in the wane of the Moone, tenne dayes before you Graffe them. *Conſtantine* addeth this reaſon, that it is neede the Graffe doe a little wither, that he may the better be receiued of the ſtocke. You muſt appoint your Graffing time in the Spring, from March, when as the buddes doe beginne to burgen, but not come out (although you may Graffe the Peare when his leaues be out) vntill May: for graffing in raine is profitable, but not for imbranching. The Oliue, whoſe ſpringes doe longeſt budde, and haue much Sappe vnder the barke, the aboundance whereof doth hurt the Graffe, muſt be Graffed (as *Florentine* ſayeth) from May, till June. *Columella* would haue the Oliue Graffed from the twelfth of March, till the firſt, or the ſixth of Aprill, and the time of graffing to be the Moone encreaſing, in the afternoone, when there bloweth no Southwinde. When you haue found a good graffe, take

Olyue grape.

The choiſe of graffing.

The knots.

The time for graffing.

The maner of graffing.

take your knife (being very sharpe) and pare it about a three fingers from the ioint downeward, so much as shall be meete to be set in the stocke: that part that is vnder the ioint (not perishing the pith) you must cut with your knife, as if you should make a pen, so as the wood with the wood, and the barke with the barke, may ioyne together, as iust as may be. Which being done, if you meane to graffe the stocke, you must first saw it smooth, and then cleaue it in the middest with a sharpe knife, about three fingers: and to the end you may handsomely put in your graffe, you must haue a little wedge of wood or Iron, (*Plinie* thinkes it better of bone) which wedge (when you will graffe betweene the rinde and the stocke) must be made flatte on the one side, and round on the other, and the graffe must be pared also flat on that side that must stand next the wood, taking alwaies good heede, that the pith be not perished: The other part must onely haue the rinde pulled off, which after you must set in the cleft, or betwixt the barke, till you see all partes agree together. Some do cut the point of their Graffe threesquare, so as two sides are bare, and the other couered with his barke: and in that sorte they vse to Graffe in a stocke one against another, but it is thought best to Graffe no more but one. When you haue thus set in your Graffe in the stock, pluck out the wedge: but heere is a great carefulnesse, and heede to be vsed. And therefore good Grafters, thinke it best to holde the Graffe euen with both handes, least in the binding and pulling out of the wedge, the Graffe be hurt, or stand vneuen. For auoiding of which, some vse for to binde the stocke about, and after to put the wedge, the bands keeping it from opening too wide. The harder they be set in, the longer will they be ere they beare, but will indure the better: you must take heede therefore, that the cleft be not too slacke nor too straight. When you haue thus Graffed, binde the stocke with a twig, and couer it with loame, well tempered with chaffe, two fingers thicknes, and (putting mosse round about it) tye it vp so, that there come no raine at it, nor be hurt with the Sunne or the Winde. This is the order both in the olde time, and at this day vsed: though in *Columellas* time (as it appeereth) they were not woont to Graffe, but onely betwixt the barke and the Woode, for the olde people (as *Plinie* writeth) durst not as yet meddle with cleauing of the stocke:

At

At length they presumed to make holes, and Graffe in the pithe, and so at last waxed bold to cleaue the stocke. *Cato* would haue the stocke couered with clay and chalke, mingled with sande, & ore doung, and so made in morter. Sometime they Graffe with the toppe of the Graft downeward, and they doe it to make a little Tree spread in breadth. It is best Graffing next the ground, if the knots and the stocke will suffer: and *Plinie* would haue the Graffe growe foorth not aboue fiue fingers. If you will graffe a little Tree, cut it neere the ground, so as it be a foote and a halfe hie. If you would carrie your Grafres farre, they will longest keepe their sappe, if they bee thrust into the roote of a Rape: and that they will be preserued, if they lie betwixt two little guttes, running out of some Riuer, or Fish ponde, and be well couered with earth. To keepe your graffes.

THRA. I do now greatly desire to heare you say some thing of emplastering, or inoculation, that is, in graffing with the bud or the leafe, which you call in Greeke ἐμφυλλισμον, which kind of Graffing, I see those that are giuen to new fashions delight much in. Of implastering & inoculation.

MARIVS. This is no new maner of Graffing, but we find that it was vsed both of the Latines, and of the Greekes, when taking of a leafe or little budde, with some part of the rind with him, we graffe it into an other braunch, from which wee haue taken as much barke. This order (*Columella* saith) the husbands in his dates were woont to call implastring, or inoculation: and before *Columellas* dayes, *Theophrastus* in his Booke De causis Plantarum, doeth shewe the reason of inoculation. *Plinie* doth say, it was first learned of Dawes, hiding of seedes in caues and holes of Trees. This kind of Graffing, as *Columella* doth write, and our Gardners them selues confesse, it best to be vsed in Summer, about the twelft of June: yet *Didymus* saith, he hath Graffed in this maner, & hath had good encrease with it in the spring time. And sithe it is the daintiest kind of Graffing, it is not to be vsed in all Trees, but onely in such as haue a strong, a moist, and a sappie rinde, as the Oliue, the Peach, and the Figge, which are full of milke, and haue a big barke. Of that tree that you meane to graffe, choose the youngest and the fairest branches you can, and in them take the budde that is likeliest to grow, and marke it round about two inches square, so as the budde stand euen in the middest, and then with a sharpe knife

cut

cut it round about, and flawe of the rinde, taking good heed you hurt not the budde, and take out the peece. Afterwards, go to the tree that you meane to graffe on, and choose likewise the fairest branche, and pare away the rind a little space, and ioine in your budde so iust, as the rindes may agree together so close, as neither water nor winde may enter in. You must looke that you hurt not the Wood, and that the rindes be of one thicknesse. When you haue this done, bind it vp, so as you hurt not the bud: Then clay it ouer all, leauing libertie enough for the budde. Cut off all the spring that growes about it, that there be nothing left to draw away the Sappe, but that it may onely serue the Graffe: After one and twentie dayes, vnloose it, and take off your couering and you shall see your bud incorporated in the branch of a strange Tree. *Columella* speaketh of another sort of Grafting, to bore a hole in a Tree with an Augur, either to the pithe, or the vttermost rinde, going something sloapewise downeward, and getting out all the chippes cleane, take a Vine, or an arme of the best Vine, not cutte from his old mother, and paring away the ouer rinde, thrust it fast into the hole beeing all moist and full of Sappe, leauing a bud or two onely vpon it: afterwarde, stoppe the hole well with Mosse and Claie, and commit it to the earth. In this sorte may you Graffe Vines vpon Elmes, so shall the branch liue, being both nourished by his old Mother, and his new Father. Two yeere after, you shall cut off the new graffed branch, and the stock wherein you Grafted, you shall saw off a little aboue the boring, so shall the graffe become the chiefest part of the plant. The like do our Countreymen, taking a branch of a Beech a foote thicke: And when they haue cutte it, and bored it, they set in it the branches of the best Peare or Apple that they can gette, setting ỳ same in a verie wet ground in March, and in the same Moneth the yeere after, taking vp the Beech, they cut it a sonder with a saw, betwixt the holes and the branches: and euery peece of stocke with his branch, they set in very rich and fruitfull ground. There are some that bragge of an other kind of Grafting, not much vnlike to the former, whereof notwithstanding, *African* in *Constantine* maketh mention, as tried in a Peach. They will a man to take the branch of a Willow as bigge as your arme, and two Cubites in length, or more: this they would haue you to

Wimble Grafting.

bore

boze through the middes, and after slipping off the braunches of a peach as he standes, leauing onely the top vntouched, they would haue you to make the Peach passe through the Willowe batte, and that done, to bow the Willowe like a Bowe, setting both his endes into the earth, and so to binde the hole vp with Mosse, Mozter, and bands. The yeere after when as the head of the peach, hath ioyned himselfe with the pith of the Willow, that both the bodies are become one. You shall cutte the Tree beneath, and remooue it, and raise vp the earth, so as you couer the Willow bow with the top of the Peach: and this shal bring you Peaches without stones. This kinde of Grafting must be done in moyst places, and the willowes must be holpen with often wateringes, that the nature of the Tree may be of force. The kinds and maners of propagation, are declared by *Plinie* who telleth of two kindes: the first, wherein a braunch of the Tree being bowed downe, and buried in a litle furrowe, and after two yeeres cut off, and the plant in the third yeere remooued: which if you entend to carrie any farre distaunce of, it is best for you to burie your braunches in baskets, or earthen vessels in which you may aptliest carrie them. And an other more delicater way he speaketh of, which is to get the Roote out of the very Tree, laying the branches in baskets of earth, and by that meanes, obtayning Rootes betwixt the very fruit and the toppes (for by this means the roote is fetched from the very top, so farre they presume) and from thence fetch them, bsing it as before: in which sort you may also deale with Rosemarie and Sauine. *Columella* sheweth away, how slips of all maner of Trees may be Grafted in what Trees you list.

An other maner of Grafsing.

Propagation & his kindnes.

THRA. And some are also set of the slippes, or sliuinges: my selfe haue plucked a branch from a Mulberie tree, and brooling the end a little with a mallet, haue set it in the ground & it hath growen to be a faire Tree: The like it hath bene tried (as they say) in apples and peares.

MARIVS. You say well, for Nature hath shewed vs, that the yoong sciences plucked from the rootes of the trees will grow: the yoongest are best to bee planted, and so to bee pulled vp, as they may bring with them some part of their mothers bodie. In this sorte you may plant Pomegranates, Filberdes, Appels, Seruisses, Medlars.

Medlars, Plomes, Figges, but specially Vines, and sometimes Cheries, and Pirtelles. Of the stocke and the branches are also planted the Almond, the Peare, the Mulberie, the Orenge, the Olive, the Quince, the Iuie, and the Turkish Plome: which the ofter you remoue them the better they proue. *Plinie* sayeth, the branches cut from the tree, were at the first onely vsed for Hedges, Elder, Quinces, & Briers medled together, afterwards for vse, as the Poplar, the Alder, & the Willow, at this day we set them where we best like. Heed must be taken, that the stockes, or the sets be of a good kind, not crooked, knottie, nor forked, nor slenderer, then that a man may well gripe with his hand, nor lesse then a foote in length.

THRA. It remaineth now, that you speake of the setting of the fruit or kernell.

MARIVS. Nature (as *Plinie* saieth) hath taught vs to set the Kernell, by the seedes deuoured of Birdes, and moistened with the warmth of their entrailes, and after voided in the boughes and rises of Trees: whereby we finde many times a Plaine Tree growing out of a Baye, a Baye out of a Cherrie, and a Cherrie out of a Willowe. Many Trees are sette of the fruit, kernell, or stone, which growe yeerely of themselues, by reason of the falling of the fruit: as Chestnuttes, Haselnuttes, and Walnuttes. *Columella* sayeth, they are the fruitfuller Trees that spring of their fruit, then those that are set of the stocke, or the branch. Some delight to be set in Trees, and not in the ground: when they haue no sotle of their owne, they liue in a stranger. Of the fruit or kernell, are planted Nuttes, Almonds, Pistaces, Chestnuttes, Damsons, Plums, Pineapples, Dates, Cypresse, Bayes, Apples, Peares, Maples, Firtrees, Cheries, Peaches, and Abricocks: But set or planted, they proove to be the kindlier. Some of these doe growe in grafting and other wayes: for experience teacheth, that the Nut and the Terebinth are Grafted, and *Demagoron* witnesseth as much: neither are all fruites, kernelles, and stones set in like sort, as hereafter shall be seene. Some are laid in water before, others not: some lye three dayes in hony and water, and at the fall of the leafe are buried in the ground till March: and then set Nuts are onely laid in moyst doung a day before, and of some in water and hony onely a night, least the sharpnesse of the hony destroy the sproote. Some are sette

The keeping of plants.

with

with their toppes standing vpward, as the Chestnut: others downeward, as the Almonde, though this is not greatly to be regarded, sith wee see the fruite that falles from the Tree, or is let fall by Birds, doth prosper best of any other.

THRA. I haue a wonderfull delight in the Impe Gardens of these Countries, I pray you tell me how they be ordered.

MARIVS. The ordering of an Impe Garden may not be passed ouer, wherein as in a Parke the yoong Plantes are nourished. And because the Nurse sometimes ought to be kinder, and tenderer then the Mother, a meete ground must be chosen for the purpose: that is, a ground drie, fat, and well laboured with the Mattocke, wherein the straunger may be well cherished, and verie like vnto the soile, into which you meane to remooue them. The kernels, or stones, must not be altogether naked, but little couered with some part of the fruit, so shall they afterward endure the longer. They must be set a foote, or thereabouts a sunder: After two yeeres they must be remooued. And because their Rootes doe runne very deepe into the ground, they must be somewhat bent, or turned in, to the end they may spreade abroade, and not runne downeward. Aboue all things, you must see it be free from stones and rubbish, well fenced against Poultrie, and not full of chincks or clefts, that the Sunne burne not the tender rootes: they must be set a foote and a halfe a sunder, that they hurt not one the other with their neere growing. Among other euils, they will be full of Mosmes, and therefore must be well raked and weeded: beside, growing ranke, they must be trimmed and propned. *Cato* would haue them couered ouer with Lattuses vpon forkes, to let in the Sunne, and to keepe out the colde: Thus are the Kernels of Peares, Pineapples, Nuts, Cypresse, and such others cherished. They must be gently watred for the first three dayes, at the going downe of the Sunne, that they equallie receiuing the water, may open the sooner. *Zizipha*, or Turkey Plomes, Nuttes, Wallnuttes, and Chestnuttes, Bayes, Cheries, Pistaces, Apples, Dates, Peares, Maples, Firres, Plomes, and diuers others, are sette of the stone, or kernelles. In remooving of them, haue speciall regard, that they be set in the like soile, or in better, not from hot and froward grounds, into colde and backward, nor contrarie from

Of Impe Gardens.

these to the other. You must make your Furrowes so long before, if you can that they be ouergrowne with good mould. *Mago* would haue them made a yeere before, that they may be well seasoned with the Sunne, and the weather: Or if you cannot so, you must kindle fires in the middest of them two Moneths afore, and not to set them, but after a showre. The depth of their setting must be in stiffe claie or hard ground, three Cubits: and for Plome Trees a handfull more. The Furrow must be made Furnase like, straight aboue, and broade in the bottome: and in blacke mould, two Cubites, and a hand broade, being square cornered, neuer deeper than two foote and a halfe, nor broader then two foote broade, nor neuer of lesse depth, then a foote and a halfe, which in a wet ground will drawe neere the water. Such as delight in the deapth of the ground, are to be set the deeper, as the Ashe, and the Oliue: these and such like, must be sette fower foote deepe, the others it sufficeth if they stand three foote deepe. Some vse to set vnder their Rootes round little stones, both to containe, and conueigh away the water: others lay grauell vnderneath them. The greater Trees are to be set toward the North and the West, the smaller toward the South and the East. Some will haue no Tree remooued, vnder two yeere old, or aboue three: and others when they be of a yeeres growth. *Cato* resisteth *Virgilles* authoritie, that it is to great purpose, to marke the standing of the Tree, as it grew at the first, and to place it towards the same quarters of the heauen againe. Others obserue the contrary in the Vine, and the Figge tree, beeing of opinion, that the leaues shall thereby be the thicker, and better defend the fruite, and not so soone fall: beside, the Figge Tree will be the better to be climed vppon. Moreouer, you must beware that by long tarying, the rootes be not withered, nor the winde in the North when yee remoone them, whereby many times they die, the husband not knowing the cause. *Cato* condemneth vterly all maner of windes stormes in the remooning of Trees, and therefore it is to great good purpose to take them vp with the earth about them, and to couer the rootes with a turffe, and for this cause *Cato* would haue them to be carried in baskets filled with earth vp to the top: the tree must so be set, as it may stand in the middest of the trench, and so

so great heede must be taken of the rootes, that they may not be broken, nor mangled.

THRA. Let vs now go forward with euerie Tree in his order.

MARIVS. Among all Trees and Plantes, the Vine by good right chalengeth the Soueraignetie, seeing there is no plant vsed in husbandrie more fruitfull, and more commodious then it, not alonely for the beautifulnesse, and goodlynesse of the fruit, but also for the easines he hath in growing, whereby he refuseth not almost any kinde of Countrey in the whole world, except such as are too extremely skorched with the burning heate of the Sunne, or els too extremely Frozen with the vehement cold, prospering also as well in the plaine and champion Countrey, as it doth vpon the Hillie and Mountaine Countrey: Likewise as well in the stiffe and fast ground, as in the soft and mellow ground: And oftentimes in the Loamie and leane ground as in the fat and foggie, and in the drie, as in the Moist and Mirie, yea, and in many places, in the verie Rockes it groweth most aboundantly and most fruitfullie, as is to be seene and prooued at this daie about the Riuer of Rhine in Germanie, and the Riuer of *Mosell* in France: and aboue all this, it best abideth and beareth the contrary disposition of the heauens. The Vine.

THRA. No doubt it is the most excellent Plant: But whom doe you suppose to be the first aucthour of the Planting of it: The common sorte doe attribute first inuention of it to *Bacchus*.

MARIVS. Wee that are taught by Gods holy word, doe knowe that it was first found out by the Patriarke *Noah* immediately after the drowning of the world: It may be, the Vine was before that time, though the Planting and the vse thereof, was not then knowen. The Heathen doth most falsely and verie fondly, as in many other things, do giue the inuention of the same vnto the God *Bacchus*. But *Noah* liued many yeeres before either *Bacchus*, *Saturnus*, or *Vranius* were borne. The inuention of the Vine.

THRA. It is most likely so: But I would faine know, whether the planting of Vines doth more enrich the husband, then other husbandries doe.

MARIVS. About this question there is no little adoo among the writers of old, where there are some that preferre Graffing, Tilling, and Woodsales farre aboue the Vines: and yet againe there wants not great and learned men, that affirme the Vine to be most gainefull: as declareth that old fruitfulnesse of the Vines, mentioned by *Cato*, *Varro*, and *Columella*, which vppon euery Acre yeelded seuen hundred Gallondes of Wine, and the Vineyards of *Seneca*, wherein he had yeerely vppon one acre 1000. Gallonds: when as in Corne ground, Pasture, or Woodland, if a man do gette vppon one Acre xx. s. a yeere, it is thought a great matter.

The vineyard most gaineful.

THRA. But the Vine asketh great charges, and great trauaile about it, and it is subiect to many mishappes, as the cold Frostes of Winter, the blastes and burning of Sommer and from the first appering, till the third of Maie (which is the last decretorie daie of the Vine) the hurt of the cold and Frost is feared. When it hath scaped this danger, then commeth a greater mischiefe, which lightly euery yeere doth great harme: for either with blastes in the Dog daies, or for lacke of raine, the Grapes are withered and spoiled, or els with ouermuch Raine they waxe sowre, and not ripe. Sondry other mishappes there happen, that the Vine is subiect to.

Corne feeld & vineyards compared.

MARIVS. I graunt: so is your Corne likewise, for both it asketh great charges, and such casualties oft times vndoeth the poore Husbandman. For in all kinde of Husbandry, if there be not great diligence, and good skill imploied, there will be but small commoditie reaped. And especially the vine requireth great husbandry about it, for it is tender, and soone harmed, and therefore in choise of the Vineyard, there must be good heede, and both the nature of the Country, and the disposition of the heauens to be well considered. Most men plant their Vines without any great care, or heed of them: and when they growe vp, vse little diligence in the trimming of them, by which negligence, many times they wither before they be ripe. Others againe thinke it makes no great matter, what ground they bestowe about it, and most times lay out for this purpose, the woorst ground they haue, as though it woulde serue for this Plant that will serue for no other thing.

Some

Some againe reape all the commoditie they can the firſt yeeres, not prouiding for farther time, and ſo complaine, that their gaines doth neither anſwere their trauaile, nor their charges, whereas indeede their owne follie and negligence is the cauſe: for if there be diligence and paines beſtowed vpon it, as *Columella* prooueth by many reaſons, there is no huſbandry ſo profitable, as the planting of Vines.

THRA. I doe not denie but that there is great profite in it, where the ground is meete for Vines, and not ſo fit for corne: otherwiſe I thinke of ſowing of Corne to be an eaſier matter, and ſpeedier way to enrich the huſband.

MARIVS. Surely as touching the eaſineſſe of the huſbandrie, and the greatneſſe of the gaine, the olde writers haue euer preferred the Vineyard afore the corne feelde: for as *Columella* reporteth *Siſerna* writeth, that the labour of one man is ſufficient for eight acres of Vines, or at the leaſt for ſeauen: of the increaſe I haue ſpoken before.

THRA. Mary ſir at this day one man thinkes three Acres too much for him: but not to trouble your talke, I praie you go forward with the huſbandry of your Vines.

MARIVS. The ordering of the Wine bearing Vines, as the ſorts of Vines are ſundry, neither can they be conteined in certaine numbers, for there is as many ſortes, as there is of grounde, *Homer* giueth the chiefeſt prayſe to the Wine of *Maronia*, and *Pramnium*, *Virgill* moſt commendeth Rhenithe wine: others the wine of *Aminia*, *Lamentana*, *Candy*, and *Corſega*, but I meane to ſpeake of thoſe that are commonly in our dayes. In Italy at this day they make moſt account of wine of *Corſega*, *Romani*, and *Meſina*. In Spaine the chiefeſt eſteeme wine of S. Martine, of *Ribedari*, and *Giberalter*. In France the greateſt prayſe is giuen to the Wine of *Orleans*, *Anino*, and *Grenes*, Germanie began but of late to meddle with planting of Vines: for *Varro* writeth, that the Frenchmen, and Germaines had in his time both Vines and Oliues: but at this day the *Rhine*, the *Necker*, the *Mene*, *Moſel* and *Danaw*, may compare with any Countries, for goodnes of their Vines.

THRA. I ſee that the Vines are diuerſely dreſſed otherwiſe

in Italie, then in France, and otherwise in France, then in Germany, euery Countrey vsing his seuerall fashion.

MARIVS. True: for as *Plinie*, after *Columella*, teacheth, the Vine may be planted fiue sundry wayes: for either his branches are suffered to runne in safetie vpon the ground, or else without any stay grow vpright, or hauing a stay or a prop set for them, they climbe vp by it, or else run vp by a couple of such props, called of *Liuy* a poke, or else sustained with fower of those pokes, which of the resemblance that they haue with the hollow gutters of a house, are said to be guttered: Others againe suffered to runne vppon frames like Arbers, seruing to sit vnder, & are called Arber Vines: Others runne vp by the walles of houses. Moreouer, the poked Vines, called in Greeke Ἐπιζωμίδια, are tyed together, and ioyned with three or fower props, as if they were poked: some do let them runne vppon Trees, as commonly in *Lumbardy*, they are suffered to climbe vpon Elmes, Willowes, and Ashes, where they greatly prosper: neither do they like all manner of Trees, for they hate the Nut tree, the Baye, the Radish, and the Coll: as againe they loue the Poplar, the Elme, the Willow, the Figge, and the Oliue tree. The Vines that are poked, or staied vp with props, receiue more aire, and beare their fruit the higher, and ripe the better, but aske more trouble in the looking to: and these are so ordered, that they may be plowed, whereby they are the more fruitfull, because they may the oftner, and with the lesse charge be tilled. The Vines that creepe vpon the ground, make much wine, but not (as *Columella* sayth) so good.

Trees which be friends or foes to the Vine.

THRA. Now to your ordering of them.

MARIVS. First, I will speake of the ground, and of the digging of it, and after of the planting, and cutting of them. And first you must take for a speciall note, that euery Vine will not agree with euery place, nor yeelde his Wine in like goodnesse, of such force is the quality of the aire, neither will all kinde of ground serue: For *Columella* doth counsaile to set the Vine in a wilde grounde, rather then where Corne or bushes haue growne: For as for old Vineyards, it is most certaine, they are the worst places of all other to be set new in, because the ground is matted and as it were netted with the remaines of the old Rootes: Neither hath it

The ordering of Vines.

What ground is best for the Vine.

lost

lost the poyson of the rotten and olde stincking Rootes, wherewith the soile (glutted as it were with Uenime) is benommed, And therefore the wilde and vntilled ground is chiefely to be chosen, which though it be ouer growne with shrubbes and Trees, may yet easily be ridde. If such wild ground be not to be had, the best is the plaine champion land without Trees: if neither such a ground, then the light and thinne Bushie ground, or Oliue ground. The last and woorst (as I saied) is the old rotten Uineyard, which if necessitie compell you to take, you must first ridde the ground of all the old rotten rootes, and then couer it either with olde doung, or with the newest of any other kind of mannuring: the Rootes being thus digged vp, must be laid vp together, and burned. After must the ground be considered, whether it be mellowe and gentle: It is thought to be good, that is something greetie and grauellie, and full of small Peebles, so that it be mingled with fatte mould withall, which if it be not, is vterly disalowed.

Dame Ceres ioyes in heauie ground, and Bacchus in the light.

You shall perceiue it to be mallie and thicke, if being digged, and cast into the hole againe, it riseth ouer: if it scarsely fill the hole, it is a signe that it is light and thinne. The Flint by the generall consent of husbandmen, is counted a friend to the Uine, specially where it is well couered with good mould: for being cold and a keeper of moysture, it suffereth not the Rootes to be skalded with the heate of Sommer: So much that *Columella* doth will men to laie certaine stones about the sides of the Uinetrees, so that they exceede not the weight of fiue pound a peece: which as *Virgil* hath noted, keepes awaie the water in Winter, and the heate in Sommer.

Hurle in the thirstie stone, or therein throwe the nastie shelles.

So do we see the bankes of the Rhine beeing full of these stones, to yeeld an excellent good Wine: but the stones that lye aboue ground, are to be cast away: for in the Sommer beeing heated with the Sunne, they burne the Uine, and in the Winter they hurt them with their coldnesse, contrarie to those that lye in the bottome. But the best of all is the foote of an hill, which receiueth the falling mould from the toppes, or the valle, that with ouerflowing of Riuers hath been made ritch. Neither is Chalkie ground

to be refused, though the Chalke of it selfe that Potters vse, is hurtfull to the Vine. The hongry Sandie ground, the salte, bitter, and thirstie ground, is not meete for the Vine: yet the Blacke and Reddish Sand, medled with some moyst earth, is of some allowed well yenough. Moreouer neither grounde too hotte, or too colde, too dry, nor too moyst, too slender, nor too stiffe, that will not suffer the raine to sincke, as meete is to be vsed for Vines, for it will easily gape and open, whereby the Sunne comming in at the crauesses, doth burne the rootes: That againe which is ouerthinne, letting in as it were by vents by Raine, the Sunne, and the Winde, doth drie vp the moysture of the rootes: The thicke and stiffe ground is hardly to be laboured, the fatte grounde subiect to too much ranckenesse, the leane grounde to barrennesse: wherefore there must be an euen temperature amongest these extreamities, as is required in our bodies, whose health is preserued by the equall medley of heate and colde, drieth and moysture, fulnesse and emptinesse, or thicknesse and thinnesse: Neither yet is this temperature in grounde for Vines so iustly to be euened, but that there is required a more enclining to the one parte, as that the earth bee more hotte then colde, more drie then moyste, more subtill then grosse, specially if the state of the Heauens agree: againe, what quarter whereof the Vineyard ought lye, it is an old controuersie, some like best the rising of the Sunne, some the West, some the North, *Virgil* misliketh the West: others againe thinke the best lying to be vpon the South. But in generall it is thought best in cold Countries, to haue it lye toward the South, in warme Countries vpon the East, in hot burning Countries, as *Aegypt* and *Barbarie*, vpon the North. *Plinie* would haue the Vine himselfe stand towards the North, and his spring, or shootes, towards the South. A fitte ground, and well lying, being found out, must be diligently digged, dounged, and weeded: all vnprofitable weedes must be pulled vp, and throwen away, least they should spring againe, and either corrupt the young plants, or hinder the labourer.

What quarter of the hauen the Vine must lye against.

THRA. Before you come to trenching, I would gladly heare in what sort you plant your Vine, and what season is fittest for it.

MARIVS.

MARIVS. I will first speake of the season, and afterwardes of the planting. The Vine is planted according to *Virgils* rule, in the fall of the leafe, but better in the spring, if the weather be rayne, or cold, or the ground be fatte, champion, or a watrish valley: and best in the fall of the leafe, if the weather be drie and warme, the ground drie and light, a barreine, or a rugged hill. The time of planting, in the Spring (as *Columella* saith) endureth fortie daies, from the Ides of Februarie, vntill the *AEquinoctial*: and in the fall of the leafe, from the Ides of October, to the Kalends of December. *Cassian* in *Constantine* being taught by experience, will in watrie grounds you should rather plant in *Autumne*, when the leaues are falne, and the plants after the Vinetage, deliuered of the burthen of their clusters, sound & strong, before they be nipped with the frostes, for then they best agree with the ground, nature applying her selfe wholly to the nourishing of the roote. The time of grafting *Columella* saith, is of some extended from the first of November, to the first of June, till which time the shote or graffe may be preserued: but it is not well liked of him, who rather would haue it to be done in warmer weather, when the Winter is past, when both budde and rynde is naturally mooued, and safe from cold, that might annoy either the Graffe, or the Stocke: yet he granteth (when hast requireth) it may be done in the fall of the leafe, when as the temperature of the ayre, is not much vnlike to the Spring: for which purpose, you must choose a warme day, and no winde stirring. The Graffe must be round and sound, not full of pith, but of budded, and thicke of ioyntes, the tenant whereof must not exceede three yaches, and smooth, and euen cut: the stocke & the cleft must be well clooled with clay and mosse. Those that grow toward the South, must be marked, which *Virgill* obseruing saith:

But on the barke, they also note the quarter of the skie,
The order how it stood, and grew, and where the South did lie.

The like is to bee done with all other Trees. Of planting of Vines, there is two waies, the one of the Roote, the other of the branch, or spray: The Roote is counted a great deale better then the branch or set, by reason of the forwardnesse, and vantage that it hath, in that it hath alreadie taken roote. The Roote is set in stiffe ground, well digged and laboured, in a trench of three foote, the

The time for planting of Vines.

Graffing of Vines.

What Graffes to be chosen.

the set or spray, in a gentle and mellow ground: in drie ground, it is neither good to set the Roote, nor the Branch in a drie season: it is best to plant in the fall of the leafe in a hot season, and in a cold and moyst, in the spring: in much wet you must set them thinner, in great drieth, thicker: in what sort you shall make a store Garden for Vines, *Palladius* teacheth you. The set requireth a time to roote, and being remooued will beare the better fruit. The rootes doe beare fruit the second yeere, or sooner: the settes, or branches, scarse in the third or fourth yeere, though in some places sooner. *Didymus* in *Constantine* teacheth an easie and a readie way of planting the Quickset, which is, to take of a strong and tenne yeere Vine, the longest and fairest branch, that groweth lowest, a foote from the ground, and laying it long in a Trench of a foote deapth, to couer it with earth the space of fower iointes, so that remaine in the toppe, exceede not two or three iointes: and if the branch be so long, as it will serue for two burnings, you may make thereof two rootes. You must not suffer two rootes to run vp vpon one stay, but allow euery roote his supporter. The Branches, or set that you meane to plant, you must cut from a very fruitfull and flourishing Vine, that hath borne ripe and perfect good fruit, full of iointes, and not any waies tainted, but whole and sound. Of such you must choose your settes, and not of yoong Vines, that are weake and feeble, but such as are in their chiefe state. Moreouer, you must gather your set, not of the highest, nor the lowest, but from the middest of the Vine: the sette must be rounde, smooth, full of knots and iointes, and many little burgeons. Assoone as you haue cut it off, looke that you sette it: for better both it agree with the ground, and sooner grow. If you are driuen to keepe them, burie them in the ground either loose, or loosely bound: and if the time be long that you meane to keepe them, you must lay them in emptie barrels, strawing earth vnder them, and vpon them, that the earth may lie round about them: and the barrell you must stop closely with clay, that there enter neither winde nor aire, so shall you preserue them two monethes in their goodnesse. Such as are ouer drie, you must lay them in water foure and twentie houres afore you set them, and you must set two settes together, that though the one faile, the other may take: and if they both grow, you may take vp

the

the lesser of them: you must not make a medley of sundry sortes, specially white and blacke together: but as *Columella* saith, must sort them severally. You must beware that the settes haue not put out their springes, and that you set not a withered set. *Constantine* would haue the set something crooked, affirming that it will the sooner take roote. You must lay about them three or foure stones, and then raise the earth, that it may equally with the doung be troden downe: for the stones keepeth the earth firme, and as I said before, cooleth the Roote. Both the endes of the set you must annoint with Dre dounge, for the killing of the wormes: as for the length, if it be full of iointes, it may be the shorter, if it haue fewe iointes, you must make it the longer, and yet not exceeding a foote in length, nor a shaftman in shortnesse, the one for beeing burnt with ouer drynesse in Sommer, the other least being set to deepe, it be with great hardnesse taken vp, but this is for the leuell ground: for vpon hilles, where the earth still falleth, you may haue them a foote and a hand breadth in length. *Florentine* would not haue the trench lesse then foure foote in deapth: for beeing set shallow, they sooner decay, both for the want of sustenance, and great heat of the Sunne, which is thought to pearse foure foote into the ground: though some there be that thinke three foote sufficient for the plant. The Trenches for Vines, *Virgil* would not haue verie deepe: but deeper a great deale for Trees. Such Vines as you meane shall runne vpon trees, you must plant three cubites distant from the Tree: afterwardes, when they be well growen, and need to be ioyned with the Tree (which you shall perceiue by his thicknesse) you shall lay it downe in length, and burie it, till it come within a foote of the Tree, suffering the remaine to goe at libertie, nipping off all the buddes with your naile, except one or two, that it may the better prosper, which when it is growen vp, you must ioyne by little and little to the Tree, that it may rest vpon it: which part of the Tree must be diligently proyned, and the springes and sciences, that grow out of the roote, must according to *Florentinus*, be cut cleane away. The trees, as much as may be, must be forced to the East and West, and both the Tree and the Vine, must haue the earth well digged, and dounged about them. In rich ground, you may suffer the

The length of the setts.

trees

trees to grow in height, but in barraine ground they must be pulled at seauen or eight foote, least all the substance of the earth be soked vp of the tree. After your planting, you must digge the ground euery Moneth, and weede it, specially from the first of March, till the first of October: euery thirteth day you must digge about the yong plantes, and plucke vp the weedes, specially the grasse, which except it be cleane plucked vp and cast away, though it be neuer so well couered, will spring againe, and so burne the plants, as they will make them both foule and withered: the oftner you digge them, the more good you doe them. When the Grape beginnes to alter, you must in hand with your third digging, and when it is ripe, before noone when it waxeth hotte, and afternoone when the heate decreaseth, you must digge it, and raise the dust, which doing, defendeth the Grape both from the Sunne and the Pitte. According to *Virgils* mind, the Vine must be digged and weeded euery Moneth: some would haue them digged all the Sommer long, after euery deawe: others againe will not haue them digged, as long as they budde or burgen, for hurting the springes, saying, that it is enough to digge them thrise in the yeere, from the entering of the Sunne into *Aries*, till the rising of the seauen Starres, and the Dogge. Some againe would haue it done from the vintage before Winter, and from the Ides of Aprill before it take, and then againe before it flowre, and likewise before the burning houres of the day: In some places when they haue digged them, they doe not straight waies couer them, but suffer the trenches to lie open all the Winter, in wette and raynie places they couer them sooner, closing vp the Rootes with earth, and stopping all the passages of the water. Some make the trenches verie deepe, and some not passing a foote deepe: and when they haue done, they couer them a loft with Ore doung, sheepes doung, or hogges doung, or of other cattell: Pigions doung is the hottest, and such as causeth the Vine fastest to grow, but maketh the woorser Wine. The doung must not be laid cloose to the Vine, but a litle distant from it, whereby the Rootes that spreade abroad, may haue some helpe of it, and the doung must not touch the Rootes, for breaking of them: If there be no doung at hand, the stalkes of Beanes, and other Pulse, will well serue the turne, which both defendeth the

The ordering of Vines after their planting.

Of digging and dounging of Vines.

What doung is best for Vines.

Where the doung must be laide.

Vine

Vine from frost and cold, and keepes them likewise from noysome woormes: the kernels, and the stalkes of the Grapes, doe likewise supplie the want of doung, but the best of all, is old stale Urine. The plants of a yeere, or two yeere old, and so foorth till fiue yeeres, must be discreetly digged, and dounged, according to their state: in sandie ground, the best doung is of Sheepe and Goates, and in such sort you must digge the ground, that the earth that lyeth highest, be cast to the bottome, and that which was at the bottome, be laide a loft: so shall that that was dry by the moysture within, be helped, and that which was moyst and stiffe by the heate aboue, be loosened. You must also see that there be no holes nor pits in the Vineyard, but that it lie euen. When you haue thus digged it, and that the Vines haue taken Roote the first yeere, the rootes that grow about, must be cut away with a sharpe knife: for the Vine, if it be suffered to roote euery way, it hindereth the deepe downe growing of the roote. The Vines that are now of two yeeres growth, we must digge and trench about two foote deepe, and three foote broad, according to the rule of *Socion*. Of those Vines that climbe vpon Trees, you must likewise cut of the springes that runne among the Rootes of the Tree, least the small Roote tangled with the greater, be strangled: and therefore you must leaue some litle space betwixt the Vine and the tree. Often digging causeth great fruitfulnesse: good heede must be taken, that the plants be not hurt in the digging: also it must be digged before his flourishing, or shooting out of his leaues, for as immediatly therwithall he beginneth to thrust out his fruit. So he that diggeth after the comming foorth thereof, looseth much fruit with the violent shaking, and therefore must digge the timelier. Cutting and dressing of the Rootes, you must begin in hand with at the Ides of October: so that they may be trimmed and dispatched afore Winter. After Winter digge about the Rootes that you haue dressed: and before the Sunne enter the *AEquinoctium*, leuell the Rootes that you haue trimmed. After the Ides of Aprill, raise vp the earth about your Vine: in Sommer let the ground bee oftentimes harrowed. After the Ides of October (as I haue said) before the cold come in, you must dresse the Rootes of your Vines, which labour layeth open the Sommer springes, which the good husband cutteth away with his knife: for if you

Pisse the best dung.

The order of digging or stirring the ground.

Dressing of Vines.

if you suffer them to grow, the rootes that grow downe will perish, and it happeneth that the rootes spread all aboue, which will be subiect both to cold and heat: and therefore what so euer is within a foote and a halfe, is to be cut off, but so, as you hurt not the principall. You must make this riddance of the Rootes at euery fall of the leafe, for the first fiue yeere, till the Vine be full growen, after, you must dresse them euery fourth yeere: such Vines as are ioyned with Trees, for the vnhandsomenesse, can not be thus handled. Vines and Trees, the sooner their Rootes be thus dressed, the stronger and weightier they will be: but such as grow vpon the sides of hilles, must so be dressed, as the vpper Rootes neare to the stocke may spread largely, and vnderneath towards the foote of the hill, the earth must be bancked to keepe the water and the mould the better. The old Vine must not haue his Roote medled withall for withering, nor be plowed, for breaking of them, but the earth a litle loosed with a Mattocke, and when you haue thus drest the roote, laye doung about it. After this ridding of the Rootes, then followeth proyning, or cutting, wherby the whole Vine is brought to one twigge, and that also cut within two ioyntes of the earth: which cutting must not be in the ioint, but betwirt the ioyntes with a slope cut, for auoyding the water: neither must the cut be on that side that the bud comes out of, but on the contrarie, least with his bleeding he kill the budde. *Columella* appointeth two seasons for the cutting of Vines, the spring, and the fall of the leafe, iudging in cold Countries, the cutting in the Spring to be best, and in hot Countries where the Winters be milde, the fall of the leafe: at which time both Trees and Plants, by the deuine and euerlasting appointment of God, yeeld vp their fruit and their leafe. Yet must not your settes be too nearely cut, except they be verie feeble: but the first yeere they be set, they must be holpen with often digging, and pulling of the leaues monethly while they beare, that they may grow the better. *Phamphilus* in *Constantine* declareth the time of cutting, or proyning, to begin in Februarie, or March, from the fifteenth of Februarie, till the twentieth of March: some (he saieth) thought good to cut them immediatly after the gathering of the Grapes, least by bleeding in the spring, they loose their sustenance: though being cut in the fall of the leafe, it springeth the sooner in

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the ſpring, and if the cold of froſt happen to come, it is ſpoyled. Therefore in cold Countries, it were better to proyne it a little, then to cut it throughly, that is, to ſuffer the principall ſprings, and branches to grow. Againe, it is very neceſſarie to cut them in the ſpring: the cuttes muſt be made with a very sharpe knife: that they may be ſmooth, and that the water may not ſtand in them, to the engendring of wormes, and corrupting of the Vine: you muſt cut them round, ſo will the cut be ſooner growen out againe: but *Plinie* would haue them ſlope wiſe, for the better auoyding of the water. The branches that be broad, old, crooked, or wythen, cut away, and ſet young and better in their place. You muſt make an end of your cutting with as much ſpeed as you may, from the Ides of December, till the Ides of January: you muſt not touche your Vines with a knife: for *Columella* witneſſeth, that Vines in winter may not be cut. In cutting, remember well to cut it betwixt two ioyntes, for if you cut it in the ioynt, you ſpill it: let the cut be alwaies downward, ſo ſhall it be ſafe both from ſunne, and weather. You muſt not cut them very early, but when the Sunne hath drunk vp the froſt, or the deaw, and warmed the branch: the ſprings of the ſets the firſt yeere, muſt be cut with good diſcretion, nor ſuffered to grow too ranke, nor cut too neare, but making the old ſet to ſuffer a ſpring or two to grow out. Next vnto cutting, followeth the proppping, or ſupporting of the Vine: and it is beſt for the young & tender Vine, not to be ſtayed vp with any ſtrong ſtay, but with ſome ſmall thing at the firſt, & while it is young, it muſt be deintely tyed to the ſtay, with ſmall twigges of Willow, Elme, Broome, Rushes, or Straw: this latter binding, is thought to be beſt for the twigges when they ware drie, do pearce & hurt the rinde. There is an hearb, which becauſe of his aptneſſe for tying of Vines, the *Sicyllians* call ἀμπελόδεσμον. The beſt ſtayes for Vines as *Plinie* ſaith, are made of Willow, Oke, Reede, Juniper, Cypreſſe, and Elder. And in an other place, he preferreth the Cheſtnut for this purpoſe, aboue all the reſt. The beſt for the Vine, is the Reede, which well endureth fiue yeeres: gelding of the leaues, and cutting the Vine, is almoſt in one maner. The gelding of the leaues, or branches, muſt be done twiſe a yeere, to the end that the ſuperfluous ſprynges and leaues may bee plucked off. The firſt (as *Plinie* writeth) muſt

Propping of Vines.

Gelding or plucking off of leaues.

be

be done within 15. daies after the Ides of May, before the Vine begin to flowre: for about the tenth of June, both the Vine, and Wheate, the two noble fruites, do flowre. Of the second time, the opinions are sundry, for some suppose it best to pluck off the leaues and branches, as soone as it hath left flowring: others, when the fruit is full ripe. The superfluous springes being yong and tender, are to be taken away, that the Vine may be more at libertie, and through blowen with the Winde. This gelding, or cutting away the superfluous branches and leaues, is as needefull as the propping: for both the fruit doth prosper the better, and the propping the nert yeere will be the handsomer, and the Vine will be the lesse full of galles: for that which is cut being greene and tender, doth the sooner and the soundlier recouer himselfe, and the Grape ripeth the better. Ten daies before the Vines beginnes to flowre, see that you geld it in this sort: cut off all the superfluous branches, both on the toppe, and on the sides, but meddle not where the clusters grow, strike off the toppes of the branches for growing too ranke: such Grapes as grow towardes the South, or the West, leaue them their branches to defend them from the heat of the Sunne: cut away moss from the yoong Vine, for ouerburdning him. After the heat of the Sunne beginneth to fade, away with the leaues, for hindering the Grapes of their riping: and while the Grape is a flowring, busie your selfe with digging about it. Such Vines as with thicknesse of their leaues corrupteth their fruit, are to be ridde of their superfluous branches and leaues, a Moneth before the gathering of your Grapes, that the wind may blowe the better through them: but the leaues that growe aloft in the very top, must not be medled with, but left as a defence, and shadow against the heat of the Sunne: but if so be the end of Sommer be giuen to much raine, and that the Grapes swell in greatnesse, then hardly plucke off the leaues from the top also.

THRA. You haue told vs of a great deale of labour about Vines.

MARIVS. The Vine keeper must often goe about his Vines, and set vp his props, and make euen his pokes.

THRA. One thing I pray you, let me heare more, the signes and tokens of the ripenesse: for as I vnderstand, we may not be to busie

buſie in gathering them too ſoone, nor vſe any lingring after they be ripe, without great harme.

MARIVS. You ſay true: for being gathered before they be ripe, they will make but ſmall Wine, and not dureable. And againe, if you ſuffer them too long, you ſhall not onely hurt the Vine with the ouer long bearing of hir burden, but alſo if haile or froſt happen to come, you put your vine in great danger. *Democritus* writeth, that the Grape endureth in his ripeneſſe not aboue fiue daies, and therefore the iudgement of his ripeneſſe, is not alonely to be giuen vpon the ſight, but vpon his taſt, though *Columella* thinketh there can be no certaine iudgement giuen of the taſte. But if the ſtones doe change their colour, and be no longer greene, but be almoſt black, it is a ſigne the Grape is ripe. Some againe doe preſſe the Grape betwixt their fingers, and if they ſee the ſtone to ſlippe out ſmooth, without any thing cleauing to it, they thinke them meete to be gathered, but if they come out with ſome part of the Grape, cleauing to them, they count them not to be ripe. Others prooue them in this ſort: out of a very thicke cluſter they take a Grape, and as they behold the cluſter well, wherein they ſee no change, they take it for a token of ripeneſſe. You muſt gather your Grapes, the Moone being in *Cancer, Leo, Libra, Scorpius, Capricorne*, or *Aquari*, and vnderneath the earth.

THRA. Is there no way to make the Grape ripe ſpeedely?

MARIVS. Plinie teacheth, to rubbe ouer the Rootes with tart Vinegar, and very old Vrine, and thus to be often digged, and couered.

THRA. What order haue you for preſeruing of your Grapes when they be gathered?

MARIVS. Some keepe them hanged vp in the roofe of Chambers, and ſome in earthen pots cloſe couered with wodden veſſels. *Palladius* ſheweth a way how to keepe them vpon the Vine, till the Spring.

THRA. I pray you proceede with the other fruite trees of your Orchardes.

MARIVS. Among other fruite trees next vnto the Vine (as *Columella* ſayth) the chiefe place is giuen to the Oliue, in Latine *Oleu*, in Greeke Ἐλαία ἐμοί. Of all other plantes it requireth leaſt The Oliue.

trauaile and charges, where as the Vine requireth most: and though it beare not euery yeere, but euery other yeere, yet is he to be borne withall, because he asketh neither cost nor labour: and if you bestow any vpon him, he recompenseth it thoughly, with the aboundance of his fruit. And since there is so great profite and commoditie in this tree, and that the vses of it are so many, and so needefull, it is good reason to be diligent and carefull about it: he loueth a ground neither too hie, nor too lowe, but rather the side of a hill, such as is the most part of Italie and Spaine: for in such ground, the extreeme heate of the Sunne, is something mollified with the cold blastes of the winde: for in Olive Trees (as *Plinie* sayth) the soyle, and the clime, is of great importance: it delighteth in a warme, and a dry aire, and therefore in *Barbary*, *Sicil*, *Andalusia*, sundry partes of Italie, specially *Campania*, it prospereth woonderfully: it liketh not too great heate, nor too much cold. And therefore in hotte countries, it ioyneth vpon the North side of the hilles, and in cold, vpon the South side. It is thought, that if it stand aboue threescore miles from the Sea, that it either dieth, or prooueth not fruitfull. The best ground is the grauelly ground, hauing aloft a little Chalke mingled with sand: it is also good ground where the sand, or grauell, is medled with rich moulde: yea the stiffe ground, if it be rich and liuely, doth very well agree with this tree. Chalkie ground is vtterly to be refused, and watry and marish ground woorst of all. The like is a barraine sand, and hungry sand: but you may set it well in Corne ground, where either the Wilding or Masthelme hath growen: but betwixt the Oake and it, there is great hatred, for if the Oake groweth neere, it flieth away, and shrinketh towards the earth: and though you cut downe the Oake, yet the very Rootes poysoneth and killeth the poore Olive. The like, some affirme of the Trees called *Cerrus*, and *Esculus*: for where they be pulled vp, if you set the Olive, he dieth: so doth it (as *Plinie* sayth) if it chaunce to be bruised of the Goate. On the other side: betwixt the Olive and the Vine there is great friendship and loue: and it is sayd, that if you Graffe the Olive vpon the Vine, it will beare a fruit that shall be halfe Grape, and halfe Olive, called *Vnolea* in Greeke Ελαιοσταφυλος, and Olive Grape. There are sundry wayes of planting of Olives: some

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take the biggeſt branches from the Trees, and ſawing off the youngeſt plantes of two cubites in length, they ſet them orderly in the ground: ſome ſet the whole Tree togeather. Some againe cutting off the toppes, and all the branches, ſet the ſtocke, about the riſing of the ſtarre *Areturus*. Many make them Impe Gardens in good ground and mellowe, ſuch as is commonly the blacke mould: heerein they ſet the young branches the loweſt, and the fayreſt, two or three inches in thickneſſe, and verie fertill, which they gather not from the body of the tree, but from the neweſt and lateſt bowes. Theſe they cut into prety ſettes of a foote and a halfe in length, taking good heede that they hurt not the rinde, and paring the ends very ſmooth with a ſharpe Knife, and marking them with redde Oker, that they may know which way they ſtood afore, and ſo ſetting the loweſt part into the ground, and the higheſt towards the Heauen, they put them in the ground, and ſo they grow the faſter, and beare the better: for if you ſhould ſet them with the lower end vpward, they would either hardly growe, and prooue vnfruitfull: and therefore they haue a regard of the ſetting of them. You muſt beſide, before you ſet them, rubbe ouer both the top and the foote, with doung mingled with Aſhes, and ſo ſet them deepe in the ground, couering them foure fingers thick with rotten mould. You may chooſe whether you will ſette them all vnder the ground, or ſette ſome part within the ground, and ſuffer the reſt to appeere aboue the ground: thoſe that be ſet all within the ground, neede not to be marked, but ſuch as ſhall ſtand with one part aboue the ground. *Dydimus* would haue them ſo ſet as they may appeere foure fingers aboue the ground, and then to make a little trench for the receiuing of the water: and this maner of planting with the bowes, is of *Didymus* beſt liked. Where you meane to plant, you muſt purge the ground of all other plantes, buſhes, and weedes: and the Trenches muſt ſo be made, as with the wind, the ſunne and raine, it may be mellowed and made crombling, that the plantes may the ſooner take roote. If your buſines require haſt, you muſt a moneth or two before, burne in the trenches either ſtickes, or reede, or ſuch things as will eaſily take fyre: and this you muſt doe diuers daies together. Your trēches muſt be three cubites, or thereabout in deapth, & 40. cubites aſunder, whereby the trees may haue

ayre enough: the first yere, second, and the third, the earth must be trimmed with often raking: the first two yeres you must not meddle with propping: the third yeere, you must leaue vpon euery one a couple of branches, and often rake your Impe Garden: the fourth yeere, you shall of the two branches, cut away the weaker: being thus ordered, in the fift yeere they will be meete to be remooued: the stocke that is as big as a mans Arme, is best to be remooued: let it stand but a little aboue the ground, so shall it prosper the better. Before you remoue it, marke the part that stoode South with a peece of Oker, that you may set it in like maner againe. You must first digge the trenched ground with Mattockes, and after turne in stone plowed earth, and sow it with Barly: if there be any water standing in them, you must let it out and cast in a fewe small stones, and so setting your Settes, cast in a little doung. After the tenth of June, when the ground gapes with the heate of the sunne, you must take heede that the sunne pearce not through the clefts to the Roote. From the entring of the sunne into *Libra*, you must ridde the Rootes of all superfluous springes: and if the Tree grow vpon the edge of a hill, you must with little gutters draw away the muddy water. The doung must be cast on at the fall of the leafe, that being mingled in Winter with the mould, it may keepe the Rootes of the trees warme. The Mother of oyle must be powred vpon the great ones, and the mosse must be cut off with an iron instrument, or els it wil yeeld you no fruit. Also after certaine yeeres, you must cut and loppe your Oliue Trees, for it is an old prouerbe: that who so ploweth his Oliue Garden, craueth fruit: who doungeth it, moweth fruit: who cutteth the Trees, forceth fruit. In the Oliue Tree, you shall sometime haue one branch more gallant then his fellowes, which if you cut not away, you discourage all the rest. The Oliue is also grafted in the wilde Oliue, specially betwixt the rinde and the wood, and by emplastring: others graffe it in the Roote, and when it hath taken, they pull vp a parcell of the Roote withall, and remooue it as they doe other plantes. Those Oliues that haue the thickest barkes are grafted in the barke. The time of Grafting them, is from the entring of the Sunne into *Aries*, and with some from the xxii. of May, till the first of June. The time of geathering of Oliues, is when the greater part of halfe the fruit

waxeth black, and in faire weather: the riper the Olive is, the fatter will be the Oyle. In gathering of Olives, there is more cunning in making Oyle, then in making wine: the lesser Olives serue for Oyle, the greater for meate. There is sundry sorts of Oyle made of an Olive, the first of all is raw, and pleasantest in tast: the first streame that comes from the presse is best, and so in order. The best Oyle is about *Venafri* in *Italie*, and *Licinia* in *Spaine*: The next in goodnesse in *Prouence*, except in the fruitefull partes of *Barbary*. The Olives that you may come by with your hands, you must either vpon the ground, or with Ladders gather, and not beate them downe: for those that are beaten downe wither, and yeeld not so much Oyle as the other: and better is the Olive that is gathered with the bare hand, then with gloues: there is an old law for Olives, bruise not the Olive, nor beate him. Those that passe the reach of the hand, must be rather beaten downe with Reeues then Powles: the Oyle is increased from the rysing of the Bearward, to the sixteenth of the kalends of October: after, the stone and the meate doe growe. Of Oyle, some part serueth for meate, and other for the sowpling of the bodie: and therefore as *Varro* sayth, it accompanieth his master, not onely to the Bath, but also to the feeld: or where so euer he goeth. The Olive whereof you make your Oyle, must be taken from the ground: and if it be foule, must be washed: for the drying, three daies is sufficient: if it be frostie weather, they must be pressed the fourth day: euery first heape must be put in earthen pottes, and Oyle vessels, where with hard and rough stones they are grinded. The gathered Olive, if it lye too long in heapes, putrifieth by reason of heate, and makes vnsauerie Oyle. Mylles are more handsome for the making of Oyle, then the trough and the foote: for the Mylles may be handled with great discreation: the whole store may be rayled or let downe, according to the quantitie of the Berrie, least the stone which would marre the taste of the Oile should be broken. The presses chiefely, and the oile houses ought to be warme: for the speedier running of the Oyle: which with cold would make the longer stay. And such heate and warmth is so needefull, you must prouide that your house lye toward the Sunne: so shall you neede neither flame nor fire, which with smoke or soote, may corrupt the taste of your Oyle.

The lawes and order of gathering, and bestowing of Olive, hath *Cato* described: the maner of preserving them is declared by *Columella*, which were too much for me to speake at this time.

THRA. Goe on then, and let vs heare what you can say of Apple trees: whose vse is more commonly knowen vnto vs.

Apples.

MARIVS. The Apple, called in Latine *Pomum*, in Greeke Μῆλον. There are that put this difference betwixt the Apple and the Nut, that what so euer fruit is to be eaten soft without, and hard within is an Apple, and the contrary a Nut. *Pomum* generally spoken, is to be vnderstoode of all that the Greekes comprehended in the word Ὀπωρα. as Peaches, Quinces, and Peares, whereunto the Lawyer agreeth: but in this place I speake of Apples, according to the common phrase: as for Quinces, Pomegranates, and Turkie Plomes, I will speake of in their due places. There are such sundry sortes of Apples, differing both in shape and sauour, as are scarcely to be numbred. In the old time the chiefest Apples were *Septians*, very great and round, *Martians*, *Claudians*, *Matians*, and *Appians* so called of their first founders: some againe tooke their names of their Countries, as *Camerians*, and *Grecians*: so others of their colours, as redde, sanguine, silken, and golden. Wee haue at this day that are chiefe in price the Pippen, the Romet, the Pomeroyal, the Marligold, with a great number of others that were too long to speake of. There is but one maner of planting and grafting of them all, sauing that the Peach, the Lemon, the Abricoct, the Quince, and the Cytron, which are all of *Dioscorides* accounted in the number of Apples, require a little more diligent care, as shall be said hereafter, then the others, for they are all both planted and grafted: the maner of an Impe Garden *Cato* describeth. Apple trees are set either in February, or in March: or if the Countrey be hotte and dry, in October and Nouember. But all kindes of Apples doe better prosper by grafting, and inoculation, or inbudding, as I said before about March or Aprill, or what time so euer the sap be in the rinde. They are also grafted by implastring, about the tenth of June: though some (as they say) haue had good successe in dooing it, after the entrance of the Sunne into *Aries*, as I haue said before, where I spake of implastring and Grafting. The Apple is commonly Grafted vpon the Crab stock, or

vpon

vpon the Bramble, being first planted, and the yeere after cut off within a foote of the earth: vpon this stocke you may Graffe (as I said) the tender young Graffes of any Apples. *Palladius* sayth, you may graffe the Apple vpon the Perrie, the Hawthorne, Plometree, Seruisse tree, Peach, Plane tree, Poplar, Willow, and Peare: but in such difference of Countreyes, we can set downe no certaine order for them all: and therefore as farre as mine owne experience, and the knowledge that I haue learned of others will stretch, I will gladly shewe you. There are that according to the old order, doe Graffe the Apple either vpon a wilde Perry, or vpon a Quince, whereof they haue a most excellent fruit, called of the old writers *Melimela*. If you Graffe vpon the Plane tree, you shall haue a redde fruit: you may also well Graffe your Apple vpon the Damson tree, and if you Graffe vpon the Cytron, you shall haue them beare, as *Diophanes* sayth, fruit almost all the yeere long. The Apple loueth a fatte, and a good ground, well watred rather by nature, then by industrie. In mountaine Countries, they must alwayes be set toward the South: it prospereth well enough, so it be something holpen with the Sunne, neither doe they refuse either rough or marish groundes. A leane and a barraine soyle bringeth out Woorme eaten, and falling fruit: the noysome Woormes are destroyed with Hogges doung, mingled with mans vrine, and powred vpon the rootes. And if the tree be very full of Woormes, beeing scraped downe with a brasen scraper they neuer come againe, if the place whence you scraped them, be rubbed ouer with Bullockes doung: some adde vnto vrine Goates doung, and powre vpon the rootes the lees of olde wine. The tree that is sicke, or prospereth not, is holpen being watred with Asse doung, and water fiue daies: they must be often watered at the setting of the Sunne, till the Spring be come out. *Plinie* writeth, that the water wherein Lupines hath been sod powred vpon the tree, doth the fruit good. They say, if the tree be much watred with vrine, the fruit will be redde. Others againe set vnder their Trees Roses, thinking thereby to haue their Apples redde. Apple Trees (as I sayd before) must be sette euery sort by them selues, as *Columella* biddeth, least the small trees be hurt of the great, because they be not all of one growth, or strength. Beside, you must set them very thin,

Against hurtfull wormes.

that they may haue roome to shoote out their branches: For if you sette them thicke, they will neuer beare well, and therefore you must sette them forty, or at the least thirty foote asunder: The Apple declareth his ripenesse, by the blacknesse of his kernels. They are gathered after the fourteenth of September, or there about, according to their kinde, and not before the Moone be seuenteene daies old, in faire weather, and in the after noone: Those that fall from the Tree, must be laid by themselues: it is better to pull them, then to shake them, least they be bruised in their falling. They are kept in faire loftes, vaultes, or cold places, with windowes opening toward the North, which in faire weather must be sette wide open: and therefore *Varro* would haue all Apple loftes haue their windowes North, that they may receiue the North aire: the South windes must be shutte out: The blastes of the North winde, doth make them wrinkled and rugged: they must be laied thinne vpon Strawe, Chaffe, or Mattes. I had an Apple brought me out of Holland, that endured three yeares: I haue a Tree of them heere in this Orchard of his colour, called a Greening. You must laye euery sort by them selues, least sondrie sortes lying together, they sooner rotte. Some vse to laye them in Nutte leaues, which both giueth them good colour, and good smell. They are also kept from rotting, if they be laied in Barlie, or Wheate. *Palladius* would haue them kept in earthen vessels close stopped, in Sesternes, or in Caues, *Apuleius* in *Constantine*, would haue euery Apple wrapped in Nutte leaues, and so laid vp: a great sort of waies beside of keeping them, you shall reade in diuers aucthours. Some to auoide the hurt of the Frost, vse to couer them with wette Linnen cloth, which being frozen, the fruit that lieth vnder it, is preserued. Your Apples must be so laid vp as the stalkes stand downeward: neither must you touch any, but such as you neede. Apples are hurtfull to bearing cattell, so as the sauour causeth them to tyre, as *Lucian* in his Asse witnesseth: the like is written of Peares, the remedy they say, is to let them eate some of the fruit afore. Of Apples, with certaine Milles for the purpose, they make a drinke called Cider, and a small drinke beside with water, and the refuse of the Apples strained: a good drinke to coole the thirst of the poore labourer. A kinde of Vinegar also they make of Crabbes, and sowre Apples,

To keepe Apples.

which

which lying in heape together three or foure daies, they afterwards put into a Pipe, or Tunne, wherewith they mingle Spring water, or Raine water, and so is it suffered to stand close couered thirty dayes, and after taking out what Vineger they neede, they put in againe as much water. The Peare, in Latine *Pirus*, in Greeke ἀπιος and ὀχνη, challengeth the nert place, and is one of the chiefest beauties of the Orchard. The Apple Tree spreadeth in broad branches, the Peare Tree riseth in height, and delighteth in a rich and a moyst ground: it doth grow of the Kernell, and of the Pippen, but is a great while before it come to good: and when it is growen, it degenerateth from them his old good Nature, and therefore it is better to take the wilde plantes, and to set them in their ground in Nouember, and when they be well rooted, you may graffe vpon them. It is said, that it so prospereth with often digging, and much moysture, as it neuer looseth his flowre. You shall do great good vnto it, if euery other yeere you bestow some doung vpon it. Ore doung is thought to make great and massie Peares: some put too a little Ashes to make their tast the pleasanter. They are not alonely planted of the rootes, but also the verie little twigs, being plucked from the roote, will grow. If you will sette young plants, let them be three yeere old, or at the least two yeere old before you sette them. Some againe take the faireſt branches they find vpon the Tree, and sette them as they do the Olive. The time of graffing the Peare, is March and Aprill, *Plinie* saith, you may well graffe it, when the blossome is on it, which I my selfe haue tried to be true. It is Graffed vpon the Quince, the Almond tree, the Pomegranate, the Apple, and the Mulberie tree: if you graffe vpon the Mulberie, your Peare shall be red. *Virgil* teacheth to graffe it vpon an Ashe, wheras in deed it will agree with any stock: the graffe must be the growth of a yeere, and afore it be graffed, cleared of all the leaues and tender parts. And if you would haue the fruit pleasant, and the Tree fruitfull, you shall boare a hole through the stocke close by the ground, and driuing in an Oken, or a Beechen pinne, couer it vp with earth: If the Tree prosper not, wash the rootes, and water them with lees of old wine fifteene daies, so shall it beare the better and pleasanter fruit. It shall neuer be hurt with woormes, if when ye plant it, you do annoint it with

The Peare.

the

the Gaule of an Ore: if the Tree (whose roots haue been cut) seeme not to prosper, *Palladius* his remedie, is to pearce the roote through, and to driue in a pinne made either of Oake, or Plomtree. If your Peares be stonie, and choke Peares, digge vp the earth from the rootes, cleanse them of stones, and sift in good new mould againe in the place: let your Peare Trees stand thirtie foote a sunder, or little lesse: your Apple Tree farther, as I haue said. They are kept preserued sondry waies, some dipping the stalkes in boyling Pitch, doe afterwardes hang them vp, and so keepe them: others keepe them in new boyled wine, or els in a close vessell: others in sand, some in flockes, and some againe couered with Wheat, or Chaffe: some are of opinion, there is no kind of fruit, but may be preserued in Hony. Of Peares *Palladius* teacheth, as of Apples, to make both drinke and sause, the iuice being prest out with the presse: women haue a prety dishe made of Peares for their religious fastes, called *Castimoniale*. Next in order after Apples and Peares, commeth the Quince, which was first by *Cato* called *Cotoneum*, the Greekes call it Μηλον, of the citie *Cydon*, from whence it was first brought, the Italians *Meie cotogne*, the Spaniardes *Membrillo*, the Frenchmen *Vn coiginer*: both the Greekes and *Virgil*, call them of the colour χρυσομηλα, golden Apples, and *Struthia*, which kind (though they differ a little) are of this sort: for *Columella* speaketh of three sortes of Quinces, *Struthia*, *Chrysomela*, and *Mustea*, which all serue both for health and pleasure. They are planted after the same maner that Peares and Cheries are: some affirme, that the sets that haue been set in March, or in Februarie, haue taken such roote, as they haue borne fruit the yeere after. They grow well in cold and moyst Countries, in plaine and hillie groundes: In hotte drie Countries, you must set them in October. Many set them with the toppes and the sette, but neither of them both is very good: and being set of science, they soone degenerate. They are better Graffed in the stocke, then in the barke, and that in Februarie, or March: They receiue into their stockes, the Graffes (in a maner) of all maner of Trees, the Pomegranate, the Seruisse, all the sortes of Apples, and make the fruit the better. The Quince Tree must be set in that order, that in the shaking of the Winde, they droppe not one vpon the other. When it is young, or newly planted, it is helped with

To keepe Peares.

The Quince.

with doung, or better with Aſhes: they muſt be watered as often as the ſeaſon is very dry, and digged about continually: In hot Countries in October, or Nouember, in cold Countries in Febru-ary, or March: for if you doe not often digge about them, they will either be barraine, or beare naughtie fruit: they muſt be proyned, cut, and rid of all encombraunces. If the Tree be ſicke, or proſper not well, the roote muſt be watered with the mother of oyle, mingled with the like quantitie of water, as *Didymus* in *Conſtantine* ſaith, or vnſlecked Lime mingled with chalke or Rozen and Tarre muſt be powred vpon the rootes: you ſhall gather them in a faire day, being ſound and vnſpotted, and very ripe, and in the wane of the Moone. They are beſt kept coffened betwirt two hollow Tiles, To well cloſed on euery ſide with claie: ſome lay them onely in dry Qu places, where no wind commeth: others keepe them in Chaffe and Wheat, many in Hony: ſome in Wine, & maketh the Wine more pleaſaunt. *Democritus* biddeth you beware, that you lay them not neare other fruit, becauſe with the aire they will corrupt them. There is alſo made a kind of Wine of Quinces (being beaten and preſſed) and a litle Hony and Oyle put vnto it: our Countrie men make of them a precious Conſerue, and Marmelade, being congealed with long ſeething, and boiled with Sugar, Wine, and Spices. I will now ſhew you of the Medlar, which the Greekes call μέσπιλον, The the Latines *Meſpilus*, the Italians *Meſpilo*, the Spaniardes *Meſpero*, the Frenchmen *Meſplier*, or *Nefflier*, the Dutchmen *Meſpelen*: this Tree is alſo of the number of Apple trees, and Peare trees: it is planted in like maner as the Quince is: it delighteth in hot places, but well watred, though it doe well enough in cold. We haue ſeen it proſper very well among Okes, and Woodes: for we haue ſeen great Woodes of them growing among Okes, that haue yeerely yeelded a great deale of money. Some ſay it is planted of the ſcience, in March or Nouember, in a well dounged ground and mellowe, ſo that both the endes bee rubbed ouer with doung. It is alſo ſet of the ſtone, but then it is very long before it come to any thing: it is excellently well graffed in the Bramble, the Pirrie, or the Apple. The Medlar that you meane to keepe, muſt be gathered before they bee ripe: and being ſuffered to grow vpon the Tree, they laſt a great part of

the

the Winter: they are also preserued in sodden Wine, and Vineger and Water. In *Catoes* time they were not knowen in Italie. *Plinie* and others haue spoken of them: neither is it certaine, whether the old writers tooke them for Seruilles. *Plinie* speaketh of three kindes of them: The first kind hauing but three stones in them, called therefore *Tricoccum*, We haue at this day two kindes, the one hauing here and there prickles, growing in euery Wood and Thicket verie sowre afore it be mellowed, & made soft with Frost, and cold of Winter: the other hauing no prickles at all with a great fruit, which seemeth to bee brought hereunto by diligent Planting and Grafting. The Wood of the wilde Medlar we vse to make Spokes for Wheeles of, and the twiggs of them serue for Carters whippes. Next vnto the Medlar for neighbourhood sake, we must speake of the Seruille, a high tree with a round berrie, or fashioned like an Egge: wherefore it is called ωὸν as *Theophrastus* witnesseth, and the fruit ὠὰ the Latines call it *Sorbus*, the Italians as the Latines, the Spaniardes *Seruall*, the Frenchmen *Cormie* or *Cormier*, the Dutchmen *Spereffelbaum*: The fruit growes in clusters as the Grape doeth: the wilde is better then the Garden fruit. It delighteth in cold places, and if you plant it in hotte Countries, it will ware barraine. It hath no prickles as the Medlar hath, it groweth of the stone, the sette, the roote, or the science, and prospereth in a cold and wet soyle vpon hilles: it is planted in Februarie and March in cold Countries, and in hotte, in October and Nouember: It is Grafted either vpon his owne stocke, or on the Quince, or Hawthorne, either in the stocke or, the barke.

THRA. I maruell how can you haue Pomegranates here, I pray you shew what order you vse.

MARIVS. Among the strange fruites, there is none comparable to the Pomegranate (so called I think) because of his Countrey *Carthage* and *Africa*, where the best do grow: the tree (as yee see is not hie, the leafe narrow, and of a verie faire Greene, the flowre Purple, and long like a coffine, the Apple that is compassed with a thick rinde, is all full of graines within: it is called of the Greekes ῥοιὰ or ῥοὰ as well the tree as the fruit [illegible] the Pomegranate sweete & sowre, it is called in Latine *Malum Punicum*, and *Malum Granatum*, in Italian *Mele grano*, in Spanish *Granada*,

Pomegranates.

Granada, in French *Pomes de Granad*, in Dutch *Granatapffel*. This Tree onely as the Figge and the Vine, the body being clouen, dieth not: the branches are full of prickles as the Goost is: it loueth both a hotte ground, and a hotte Countrie, and liketh not watrie places. In some hotte Countries, it groweth wilde in the bushes: it is planted in the spring time, the rootes being watred with Hogges doung and stale. It is grafted vpon his owne stocke, and also vpon other Trees, and likewise of the sciences that grow from the rootes of the old tree. And though it may be planted sundry waies, yet the best way is the branch of a cubite in length, smoothed with your knife at both the endes, and set slopewise in the ground, with both his endes well smeared with Hogges doung and stale. There is also an other way of planting it, which is, to take a very fruitfull stocke, which may be brought to the earth, and him after the maner of other trees they Graffe by infolliation, betwirt the barke and the rinde, and well & closely bind it after they set it in the ground, not touching the grafted part, but the partes beneath, annointing it with the mother of oyle, and make it fast with cordes, that it slippe not backe, till the branch be growne. It much delighteth (as *Democritus* saith) in the Mirtill, in so much as the Rootes will meete and tangle together with great ioie. The fruit will grow without kernels, if as in the Vine the pith being taken out, the set be couered with earth, and (when it hath taken) the spring be proyned. There is as *African* reporteth, in euery Pomegranate a like number of graines, though they differ in bignes. *Basil* writeth in his *Hexam*, that the sowre Pomegranate will grow to be sweete, if the bodie of the tree neere to the roote be pearced through, and filled vp with a fat Pitchtree pin, you shall haue them endure a very great while, if they be first dipped in skalding water, & taken out quickly be laide in dry sand, or else in some heape of Wheat in the shadow till they be wrinckled, or else so couered with chaffe, as they touch not one the other. Other say, it is best to keepe them like Quinces, couered with plaster, or chalk: for in cold places they are kept without corrupting. The rinde of the Pomegranate is called in Latine *Malicorium*, the flowre of the Garden Pomegranate *Dioscorides* calleth Κύτινον, and of the wilde βάλαυστον.

THRA. I heare also, the outlandish Cytron is here verie carefully

carefully planted.

Citrons. *MARIVS.* The Citron, called also the *Median*, the *Persian*, and the *Assirian* Apple, because it was first brought out of *Persia*, and from the *Medes*: others say, it was first brought out of *Africa* into *Greece* by *Hercules*, and therefore *Varro* calleth it, the Apple of *Africa*: they are called in Greeke μηδικὰ, and in Italian *Citroni*, in Spanish *Zidras*, in Dutch *Geternapffel Pomerancen*, in French *Citron*: the fruit is called in Latine *Hipericum*, and *Aureum malum*, the golden Apple, also the mariage Apple of *Iupiter* and *Iuno*: such of them as are yellow, and of a golden colour, they commonly call Oranges: such as are of a greenish pale yellow, they call Cotrols, or Citruls: those that are long fashioned like an Egge, if they be yellow, are called Citrons, if they be greene Limons: if they be very great and round like Pompeons, they call them Pomcitrons: the tree doth alwaies beare fruit, some falling, some ripe, and some springing, nature shewing in them a wonderfull fertilitie, as in the Trees that *Homer* describeth in the Orchardes of *Alcinous*. The leafe is like the Baie leafe, saving that there grow prickles amongst them: the fruit is yellow, winckled without, sweete in sauour, and sowre in tast: The kernels like the kernels of a Peare, a great resister of poysons. The Tree is planted (as *Palladius* saith) fower maner of waies, of the kernell, the science, the branch, and the stocke. If you will set the kernell, you must digge the earth two foote euery way, and mingle it with Ashes: you must make short beddes, that they may be watred with gutters on euery side. In these beddes you must open the earth with your hands a hand breadth, and set three kernels together with the tops downeward, and being couered, water them euery day, and when they spring, leaue no weedes neare them: they will spring the sooner, if you water them with warme water: Others say it is best the graines being taken out in the spring, to set them diligently in good mellowed furrowes, and to water them euery fourth or fifth day: and when they begin to grow, to remoone them againe in the Spring, to a gentle and a moist ground, for it delighteth in much wette: if you set the branch, you must not set it aboue a foote and a halfe in the ground, least it rotte. The science, and the stocke, *Palladius* thinketh it better to be planted, and sheweth which way.

If

If any man meane to cherish this Tree, let him defend it well from the North, and set it toward the South, & the Sunne in the Winter, in frailes and baskets: wherefore, some that are carefull and diligent in the tendering of the Tree, do make litle vaults toward the South, close couered, and within them neare the wall, they plant the Orenge, suffering the vaults all Sommer to lie open to the Sunne, and to haue the heat thereof: and as soone as Winter comes, they couer them straight with straw, or mattes, specially with the stalkes of gourdes. This Tree delighteth to be continually digged about: they are graffed in hot places in Aprill, in cold Countries in May, not vnder the barke, but cleauing to the stocke hard by the roote: they may be graffed both on the Peare tree, and the Mulberie: but when they are graffed, must be fenced either with a wicker basket, or some earthen vessell. The fruit will be sweete, if the kernels be steeped in Water sodde with Hony, or which is better in Sheepes milke. Such as you meane to keepe, must be gathered in the night, the Moone being downe, and gathered with branches and all, as they hang. Where the fruit burdeneth the Tree, you must pull them off, and leaue but few on it, which will be the pleasanter, and the kindlier fruit. It is at this day nourished both in Germanie & Fraunce, and is planted in vessels full of earth, & in hot weather is set abroad in the Sunne: in cold weather set in Sellers, or in hot houses. I haue seen in Germanie, certaine hot houses of purpose made of Firre bordes, that in Winter haue warmed all the Garden, & in Sommer the frames taken away, haue giuen place to the Sunne. If while they be yong & little they be put into earthen vessels, or glasse, they grow according to the proportion therof: so that you may haue them fashioned either like a man or like a beast, according to your fancie: but you must so order your moulds, as the aire may come to them. But least I keepe you too long with these outlandish Trees, I will speak something of our own Trees, wherewith we are better acquainted. Among which we haue the Mulberie, in Latine *Moros*, in Greeke μόρεα, the fruit συκάμινον, in Italian *Moro*, in Spanish *Mora*, in French *Meure*, in Dutch *Mulbern*: this is accounted of all other Trees the wisest, because he neuer blossometh, till all cold weather bee quite past: so that whensoeuer you see the Mulberie begin to spring, you may be sure

The Mulberie tree.

that

that winter is at an end: he is ripe with the first, and buddeth out so hastily, as in one night with a noise he thrusteth out his leaues: they die the hands (as *Plinie* saith) with the iuice of the ripe berrie, and wash it off with the greene berry: he changeth his colour thrise, first white, then redde, and lastly black: he loueth hotte places, and grauelly, and delighteth in digging and dounging, but not in watering: his rootes must be opened about October, and the lees of Wine powred vpon them: it is sette of the stones, but thinne: it often groweth to be wilde: the best planting is the science, and the toppes, a foote and a halfe long, smooth at both endes, and rubbed ouer with doung. The place wherein you set your settes, they couer with Ashes mingled with earth, but couer it not aboue fower fingers thicke. *Palladius* biddes you to set it in March, and to remoone it in October, or Nouember. *Deritius* telleth, that the Mulberie may be planted in the fall of the leafe, by thrusting into the ground the branches, after the order of the Figge tree, which I my selfe haue prooued, specially, if the end that is cut be well bruzed that it may the quicklier take roote: and so when you haue made your hole with a stake, thrust it in: it is best graffed on the Beech, and the white Poplar, either by grafting in the stocke, or by inoculation: and so shall the berries be white. It is graffed also in the Fig, and the Elme, which in old time they would not suffer, for feare of corrupting. Of the Mulberie is made a very noble medicine for the stomacke, and for the Gout: they will longest endure (as it is said) kept in glasses. The leaues doe serue to feede silkewormes withall, whereof some make a very great gaine, and set them rather for that purpose, then for the fruit.

THRA. What tree is that with the ruddy coloured fruit is like a Cherie?

The Cornell. *MARIVS.* It is a Cornell tree, called in Greeke κρανια, in Latine *Cornus*, in Italian *Corneolo*, in Spanish *Zereko seluestro*, in French *Cornier*, in Dutch *Cornelbaum*, the tree is thought neuer to exceede twelue cubites in height: the body is sound and thicke like horne, the leafe is like an Almond leafe, but fatter, the flowre and the fruit, is like the Oliue, with many berries hanging vpon one stalke, first white, and after redde: the iuice of the ripe berries, is of a bloodie colour: it loueth both Mountaines and Valleis, and

prospereth

prospereth both in moist ground, and drie: it groweth both of the slippe, and of the seede. You must beware you plant it not neere to your Bees, for the flowre doth kill as many of them as tasteth it.

THRA. What tree is the same that groweth next vs?

MARIVS. That tree is called *Ziziphus*, in Greeke ζιζυφον, in Italian *Guiggiola*, in Spanish *Azofeifo*, in French *Iniube*, in Dutch *Burckbyte*, the berries whereof, are like the Cornell berries, the flowre like the Olive flowre, but more sweeter. *Columella* speaketh of two kindes thereof, the one redde, the other white, they are set of the stones, in hotte Countries in Aprill, and in cold places in Maie, or els in June: you may sette both the stone, and the branch, it is very slowe in growing: if you sette the plant, you must doe it in March in soft ground: but if you sette the stone, you must sette them in a little trench of a hand broad, three stones together, with their points downeward: It loueth not too rich a ground, but rather a light ground, and a warme place: in Winter (as *Palladius* sayth) it is good to lay stones about the bodie of the Tree. The next are Italian Filbertes, in Latine *Pistacea*, in Greeke πιστακια, in Italian *Pistinachi*, in Spanish *Alhozigo*, in French *Pistaches*, in Dutch *Welsce pimpernus*, the leafe is narrow, and browne, for vpon the branches hang the Nuttes, like the Nuttes of the Pine. Of this Tree it is thought there is both male and female, and therefore they grow commonly together, the male hauing vnderneath his shell, as it were long stones: It is grafted about the first of Aprill, but vpon his owne stocke, and vpon the Terebinthe, and the Almond Tree, They are also sette (*Palladius* witnesseth) in the fall of the leafe in October, both of the slippes, and the Nutte. It delighteth in a hotte and a moyst countrie, and ioyes in often watring.

Ziziphus.

Italian Filbers

THRA. Because I remember you told me before, that of Plantes and Trees some doe grow of the seede, or fruite, and some are Grafted: and because I haue heard the Grafting of most of them, I would now faine heare you speake of such Trees as grow onely of the stone, or berrie.

MARIVS. Your remembrance is good: for though they commonly grow better when they be graffes, yet some there be that prosper the better being sowen, and will scarce grow any other

way. And though some of the foresaid Trees being sette, doe well prosper, as the Medlar, the Cornell, and diuers other, yet sometimes they ware wild, and are long before they come to perfection, which *Virgill* also affirmeth.

For that same Tree that of the seed, the stone or berrie growes,
Doeth slowly spring, and long it is, ere any fruit he shewes:
And when it comes, it proueth wild, and doth degenerate,
And loseth that same relish sweete, that longeth to his state.

but by Grafting it is restored againe: Some of them againe, how so euer they be sowen or set, doe not degenerate or grow out of kinde, as the Bay, the Date, the Cypresse, the Peach, the Abricoct, the Damson, the Pistace, the Firre Tree, and the Cherrie: and because they be not all of one order, I will tell you seuerally of the chiefest of them. To plant Trees of the seede, Nature (as I saied before) taught men at the first: the seede being deuoured of Byrdes, and with the doung let fall in the clestes of trees, where they after sprong and grew. The Bay in Greeke δαφνὶς, in Latine *Laurus*, in all other toongs almost as in Latine. The berrie is called in Greeke δαφνίτις, in Latine *Lauri Bacce*, in Italian *Bacche de Lauro*, in Spanish *Vaya de laurell*, in Dutch *Lorboren*, a most gratefull Tree to the house, a porter to Emperours and Bishops, which chiefely garnisheth the house, and standeth alwaies at the entrie. *Cato* maketh two kindes thereof, the *Delphick* and *Cypresse*: the *Delphick* equally coloured and greener, with great berries, in colour betwixt greene and redde, wherewith the Conquerours at *Delphos* were woont to be crowned. The Cypresse Bay hath a shorter leafe, and a darker greene, guttered (as it were) round about the edges, which some (as *Plinie* saieth) suppose to be a wilde kinde: it groweth alwaies greene, and beareth berries, he shooteth out his branches from the sides and therefore waxeth soone old and rotten: it doth not very well away with cold ground, being hotte of nature: it is planted diuers waies, the berries being dried with the North wind, are gathered and laid abroad verie thinne, least they cluster together, afterward being wet with Urine, they are set in furrowes, a handfull deepe, and very neere togither: in March they be also planted of the slippe, and the science. If you set them of the slippe, you must set them not passing ir. foote a sunder:

The Bay.

but

but so they grow out of kind. Some thinke, that they may be graffed one in an other, as also vpon the Seruisse and the Ashe: the berries are to be gathered about the beginning of December, and to be set in the beginning of March. Nut Trees are most commonly planted of the Nut, as all other shell fruites are. Nut trees.

Of all Nuts the Almond is counted to be the worthiest, called in Greeke ἀμύγδαλον, in Italian *Mandorle*, in Spanish *Almeidras*, in French *Amandes*, in Dutch *Mandeles*, they are set in February, and prosper in a cleare and hotte ground, in a fat and a moyst ground they will grow barraine: They chiefely sette such as are crooked, and the young plantes, they are sette both of the Slips, the Roote, and the Kernell. The Nuttes that you intend to sette, must be laide a day before in soft doung: Others steepe them in Water sod with Honie, letting them lie therein but onely one night, least the sharpnesse of the Honie spoile the Plant: and being thus ordered *Columella* saith they will be both the pleasanter, and grow the better. The toppes and the sharpe endes you must set downeward: for from thence commeth the roote, the edge must stand toward the North: you must set three of them in a Triangle, a handfull one from the other: they must be watered euery ten daies, till they grow to be great: It is also planted with the branches, taken from the middest of the Tree. The Almond is graffed not neere the top of the stocke, but about the middest, vppon the bowes that grow out. This Tree doth soone beare fruit, and flowreth before all others, in Januarie, or Februarie. *Virgill* accountes it for a Prognosticatour of the plentifulnesse of Corne. The Almond Tree.

When thicke the Nutte Tree flowers amidde the wood,
That all the branches laden bend withall:
And that they prosper well and come to good,
That yeere be sure: of Corne shall plentie fall.

The bitter ones (which are the wholesomer) are made sweete, if round about the Tree, foure fingers from the Roote, you make a little trench, by which he shall sweate out his bitternesse: or else if you open the Rootes, and powre thereon either Urine, or Hogges doung: or if at the Roote of the Tree, you thrust in a fat wedge of Pitch Tree. By this meanes (as *Bassill* saith) they will loose their bitternesse: but no Tree groweth sooner out of kind, & therfore you

must often remoone it, or Graffe it when it is great. Wallnuttes,
Wallnuttes. called in Greeke βασιλικὰ, in Latine *Inglantes*, in Italian *Noci*, in Spanish *Nuzes*, in French *Noix*, in Dutch *Groissenusz*: they are sette in the ground (as *Plinie* saieth) the seame downeward, about the beginning of March: some thinke, that they will grow as the Filbert doth, either of the slippe, or the roote: it groweth speedely, and liketh a drie and cold place better then a botte. The Nutte that you meane to sette, will grow the better, if you suffer it to lie foure or fiue daies before in the water of a boye, and will prosper the more, if it be often remoued: those Nuttes (as it is thought) prosper best, that are let fall by Crowes, and other birdes. If you pearce the Tree through with an Augur, & fill vp the place againe with a pinne of Elme, the Tree shall lose his knottie hardnesse, neither will he lose his frute, if you hang by either Wallet, or a piece of Skarlet from a dounghill.

THRA. What is the reason you plant your Walnutte trees round about on the outside of your Orchard, and not among your other Trees?

MARIVS. Because his shadow is great, and vnhollsome, beside the hurt he doeth with his dropping. He sucketh out a great deale of good iuice from the ground: for as you see, they are verie mightie and high Trees, so as some of them are two or three fadome about: they occupie a great deale of roome with their standing, and beguile the other Trees of their sustenaunce: Besides, there are certaine Trees they agree not well withall, and therefore haue I sette them on the outside of my Orchard, as standards to defend their fellowes from tempest and weather. Among Nuttes, is also to be recounted the Hasell Nuttes, a kinde whereof is the Filbert,
Hasell nuttes. called in Greeke νάρυον, in Latine *Auellana*, in Italian *Nocinole*,
Filberts. in Spanish *Auellanas*, in French *Noyssette*, in Dutch *Haselnuzes*: they are planted after the maner of the Almond: it delighteth in clay and watrish grounds, and vppon hilles, being well able to abide the colde. They were first brought into *Asia* and *Greece* from *Pontus*, and therefore called *Pontica* and *Heracleotica*, &c. Among the Nuttes also chalengeth the Chestnut his place,
Chestnuttes. though he be rather to be reckoned among Maste, whereby is called the Nutte or Maste of *Iupiter*, in Greeke διὸς βάλανος, in Latine *Castanea*,

in Italian *Castagne*, in Spanish *Castana*, in French *Castagnes*, in Dutch *Kastey*: it loueth well to grow on mountaines, and in colde countries: it hateth waters, and desireth a cleane & a good mould: it misliketh not a moist grauell ground, and ioyeth in a shadowie and Northerly bancke: it hateth a stiffe and a redde claie ground, it is planted both of the Nut, and is sette: it is better planting woodes of them of the Nut, then of the sette, otherwise the safer way were the sette, which in two yeeres beareth fruit. It is planted when the Sunne is in the *Aequinoctial*, both of the science, the set, the branch, and the roote, as the Oliue is. The Chestnuts that you meane to sowe, must be very faire and ripe, the newer they be, the better they grow: you must not set them after that sort that you set Almondes, or Filbertes, but with the sharpe end vpward, and a foote a sonder: the furrow must be a shaftman deepe. You were better (as I saied) to make your Groue of the Nut, then of the settes, which will be meete to be filled for staies in seuen yere. *Columella* writeth, that the Chestnut meete for the supporting of Vines, if he be sowed in well digged ground, doeth quickly spring, and being felled after fiue yeeres, it prospereth like the Willow: and being cut out in staies, it lasteth till the next felling, as shall be shewed hereafter, when we speake of Woods. They will also haue the Chestnut to be graffed on the Walnut, the Beech, and the Oake: it hath been seene, that where they grow two and two together, they prosper the better. The Pine, in Greeke πίτυς, in Latine *Pinus*, in Italian and Spanish *Pino*, in French *Pin*, in Dutch *Hartzbaum*, is planted not much vnlike to the Almond, the kernelles of the keie clockes being set as the Almond is: they are gathered in Iulie, before the *Caniculer* windes, and ere the Nuttes, the huske being broken, fall out. The best time of sowing them, *Palladius* reckoneth to be October, and Nouember: this tree is thought to be a nourisher of all that is sowen vnder it. The Pitch tree is called in Greeke πίτυς, in Latine *Picea*, in Italian *Pezzo*, in Spanish *Pino negro*, in Dutch *Rotdannenbaum*, but I come now to the Cherie. The Cheritree, in Greeke κερασέα, the fruit κέρασος, in Italian the Tree *Ceraso*, the fruite *Cerase*, and *Ciregie*, in Spanish *Cerezo*, and *Cereza*, in French *Cerisier*, and *Cerise*, in Dutch *Kirsbaum*, *Kerssen*: the tree is easie to be planted, if ỳ stones be but cast abroad, they

The Cherie Tree.

they will grow with great encreaſe: ſuch is their forwardneſſe in growing, that the ſtayes or ſupporters of Vines, beeing made of Cherie Tree, are commonlie ſeene to grow to be Trees. They are grafted vpon the Plome Tree, vpon his owne ſtocke, vpon the Plane Tree, and on the Bramble, but beſt vpon the wild Cherie it ioyeth in being grafted, and beareth better fruite: if you graffe them vpon the Vine, your Tree ſhall beare in the Spring: the time of graffing, is either when there is no Gumme vpon them, or when the Gumme hath left running. They remoove the wilde plant, either in October, or Nouember, that the firſt of Januarie or Februarie, when it hath taken roote, it may be grafted vpon. *Martiall* would haue you graffe it in the ſtocke: but in deede it proſpereth better, being grafted betwixt the barke and the wood. It delighteth to be ſet in deepe trenches to haue roome enough, and to be often digged about. It loueth to haue the withered bowe continually cut away: it groweth beſt in colde places, and ſo hateth doung, as if it be laid about them, they grow to be wilde: it is alſo planted of the ſlippes, and will beare his fruite without ſtone: if in the ſetting of the ſette, you turne the vpper end downeward. Others will, that the tree being yong and two foote high, be ſlit downe to the roote, and the pith taken out of both ſides, and ioyned together, the ſeames cloſe bound about, and couered with doung: which within a yere after, when it is well growen, the young graffes (which hitherto haue borne no fruit) if you graffe them, will beare Cheries without ſtones, as *Martiall* ſaieth. There are ſundry kindes of Cheries (as *Plinie* reporteth, or *Apronianus*) that are redder than the reſt, *Actianus* as black as a cole: which kinde in Germanie yet at this day, they call *Ackliſche kirſen*, *Celicians*, that are round. *Plinie* in ſpeaking of the ſundry ſorts, preferreth the *Duracins*, which in *Campania* they were wonted to call *Plinians*: and a little after he ſaieth, vpon the banks of the Rhine, there grow alſo *Kerſis*, of colour betwixt black, red, and greene, like the Iuniper beries, when they be almoſt ripe: in which the common ſort of bookes haue *Tertius* for *Kerſis* amongſt the Germanes: for *Plinie* whereas in many places he vſurpeth the Dutch words, as in the 9. 10. 17. and 18 booke, and in diuers other places, which being not vnderſtanded of the Latine, came altogither corrupted to the poſteritie. There are alſo Bay

Cheries,

Cheries, grafted at the first in the Bay, and haue a prety pleasant bitternesse: at this day, the small Cheries are best esteemed, growing vpon a low bush with short stalkes, round fruit, and very red, much meate, soft, and full of licour. It is said they will beare very timely, if you lay Lime about them: it is good to gather them often, that they which you leaue, may waxe the greater: for setting and planting of Cheries, you may reade a great sort of rules in the gatherings of *Constantine*. There are also found a kinde of Cheries growing wilde in the Woods, and Hedgerowes, with little beries, some redde, some altogither blacke, which the Farmers in the Countrey do vse for to fatte their Hogges withall. The Plome Tree in Greeke προυμνια, the fruit προυμνια, in Latin *Prunus* and *Pruna*, in Italian *Prune* and *Succini*, in Spanish *Ciruelo* & *Ciruela*, in French *Prune*, in Dutch *Proumen*, it is planted from the middle of Winter, till the Ides of Februarie: but if you set the stones at the fall of the leafe, let it be done in Nouember, in a good and mellow ground two handfuls deepe: they may be likewise set in Februarie, but then they must be steeped in lie three daies, that they may sooner spring: they are also planted of the young settes that grow from the body of the tree, either in Januarie, or in the beginning of Februarie, the rootes being well couered with doung: they prosper best in a rich and a moist ground, and in a cold Countrey: they are grafted toward the end of March, and better in the clouen stocke, then in the barke, or else in Januarie, before the Gumme begin to droppe out: it is Grafted vppon his owne stock, the Peach, and the Almond. There are sundry sortes of Plomes, whereof the Damson is the principall, ioying in a dry ground, and in a hotte countrey, and is grafted as the other Plomes are. There are diuers coloured Plomes, white, blacke, purple, and redde: Wheat Plomes, and Horse Plomes, wherewith they vse to fatte Hogges. The finger Plomes are most commended, beeing of length of a mans finger, which are brought vnto vs from *Bohemia* and *Hungarie*, and *Iulians*, and *Noberdians*, being blewe in colour, but later. The Damsones are dried in the Sunne vppon Lattises, Leades, or in an Ouen, some do dip them before, either in sea water, or in Wine, and after drie them. The Peache tree, called in Greeke περσικια, the tree περσια, in Latine *Persica*, in Italian *Peseo*,

Plome trees.

The Peach Tree.

Peſco, in Spaniſh *Duraſno*, they are alſo called *Rhodocina*, and *Persocina*, or *Duracina*, whereof there are foure kindes: but the chiefeſt are the *Duracins*, and the Abricocts: in Nouember in hotte countries, and in others in Ianuary, the ſtones are to be ſet two foote a ſunder in well dyelled ground, that when the young trees are ſprong vp, they may be remoued: but in the ſetting you muſt ſet the charpe end downeward, and let them ſtand two or three fingers in the ground: whereſoeuer they grow, they reioyce moſt in watry groundes, which ground if you want, looke that you water them abundantly, ſo ſhall you haue great ſtore of fruit. Some would haue them ſet in hotte countries, and ſandy ground: whereby they ſay, their fruit will longer endure: the better will alſo the fruit be, if as ſoone as you haue eaten them, you ſet the ſtone, with ſome part of the fruit cleauing to it: it is Grafted either on himſelfe, the Almond, or the Plome tree. The Apples of *Armenia*, or Abricoct, doth farre excell the Peach, vſed as a great daintie among noble men, and much deſired of the ſicke: they are beſt grafted in the Plome, as the Peach in the Almond tree: the faireſt graffes that growe next the body of the tree are to be choſen and grafted in Ianuarie, or Febuary, in cold countries, and in Nouember in hot: for if you take thoſe that grow in the toppe they will either not grow, or if they grow, not long endure. You ſhall inoculate, or imbudde them in Maie, or Aprill, the ſtocke being cut aloft, and many young buddes ſet in: neither muſt you ſuffer them to ſtand very farre one from the other, that they may the better defend themſelues from the heate of the Sunne. The Frenchmen, and our Gardners alſo, after the Italians order, doe Graffe the Abricoct, taking a Graft (not full a finger long) or the bud that is well ſhot out, with a little of the rind cut off, and ſlitting the rinde of a young Plome tree croſſewiſe, they ſet them in, binding them well about with Hempe, or Towe, and that in the end of June, or in July, and Auguſt. Some thinke they will be red, if they be either graffed in the Plane tree, or haue Roſes ſet vnderneath them: they will alſo be figured, or written in, if ſeauen daies after that you haue ſet the ſtone, when it beginneth to open, you take out the kernell and with Vermilion, or any other colour you may counterfaite what you will, after the ſtone cloſed vp about it, and couered

The Abricots.

with

with Clay, or Hogges doung, you set it in the ground. Againe, you shall haue them without stones, if you pearce the tree thorow, and fill it vp with a pinne of Willow, or Cornell tree, the pith being had out, the Rootes of the tree must be cut and dressed in the fall of the leafe, and dounged with his owne leaues: you shall also at this time proine them, and rid them of all rooten and dead bowes. If the Tree prosper not, powre vpon the rootes the Lees of old Wine mingled with water. Against the heat of the Sunne, heap vp the earth about them, water it in the euening, and shadow them as well as you may. Against the frostes, lay on doung enough, or the Lees of Wine medled with water, or water wherein Beanes haue been sodden: if it be hurt with woormes, or such baggage, powre on it the Vrine of Oxen medled with a third part of Vinegar. The Date tree in Greeke φοινιξ, in Italian, in Latine, and in Spanish *Palma*, in French *Arbor de Dates*, in Dutch *Dactelenbaum*: the fruit in Greeke δακτυλοι, in Latine *Palmulæ*, in Italian *Datoli* in Spanish *Dattiles*, in French *Dattes*, in Dutch *Dactelem*, it groweth in a milde grauelly ground, and delighteth in a watrie soyle: and though it desire to haue Water all the yeere long, yet in a drie yeere it beares the better: and therefore some thinke, that doung is hurtfull vnto it. About the riuer *Nilus*, and in the East parts it groweth plentiously, where as they vse to make both wine and bread of it: this Tree in *Europe* (for the most part) is barraine, though it be planted of many for noueltie sake. The stones of Dates are planted in trenches of a cubite in depth and breadth, the trench filled vp againe with any maner of doung, except Goates doung: then in the middest of the heap set your stones so, as the sharper part stand vpward: other would haue it stand toward the East: and after, when first they haue sprinckled theron a little Salt, they couer them with earth, well medled with doung: and euery day while it springeth, they water it: some remoue it after a yeeres growth, other let it grow till it be great. Moreouer, because it delighteth in Salt ground, the rootes must be dressed euery yeere, and salt thrown vpon them: and so will it quickly grow to be a great Tree. The settes are not presently to be put in the ground, but first to be set in earthen pottes, and when they haue taken roote, to be remooued. Date trees haue such a delight one in the other, that The Date.

they

they bend them ſelues to touch together, and if they grow alone, they ware barraine. They are planted (as *Plinie* ſaith) of the branches, two cubits long, growing from the toppe of the Tree: alſo of the ſlippes and ſliuers. The ſame *Plinie* affirmeth, that about *Babylon*, the verie leafe (if it be ſet) doth grow.

THRA. I remember you tolde mee once, the ſpring and ſcience that groweth out of the rootes of ſome Trees, will very well be planted.

MARIVS. I told you before, that diuers of the Trees whereof I ſpake, might be planted of the branches, and of the ſciences, hauing ſome part of the Roote plucked vp with them: and ſo I ſaid the Chery might be planted, as alſo the Haſell, the Laurell, the Myrtell, and the Medlar: likewiſe the faireſt branches ſlipped off, and the endes a litle bruiſed, and thruſt into the ground, commonly doe grow to be Trees, as I my ſelfe haue tried both in the Mulbery, the Peare tree, and the Apple tree. One thing I will adde beſide, that the Trees that beare fruit ouer haſtely, doe either neuer come to their iuſt bigneſſe, or the fruit that they beare, doth neuer long endure: wherefore I thinke ſprang firſt that law of *Moiſes*, that fruit Trees ſhould for three yeeres be counted vncircumciſed, and their foreſkinnes with their fruit, ſhould be circumciſed: that is, the burgens and bloſſomes ſhould be plucked off, leaſt he ſhould beare before his time, or when he hath borne, looſe his fruit: but I keepe you too long in the diſcribing of my Orchard.

THRA. O no, I rather (whileſt I heare you) imagine my ſelfe to be amongſt them, planting and viewing of their fruites: but now remayneth that in ſteed of a concluſion to your talke, you declare the order of preſeruing them, to that end ſpecially, that thoſe thinges that are appointed for remedy (being not duely, or in time adminiſtred: be not rather a hurt) then a helpe.

MARIVS. Your motion is good: Firſt therefore, and generally, dounging and watring is needfull for fruit Trees, a very few excepted: and herein heed muſt be taken, that you doe it not in the heate of the Sunne, and that it be neither too new, nor to old: neither muſt it be laide cloſe to the foote of the tree, but a litle diſtance off, that the fatneſſe of the doung may be druncke in of the roote. Pigeons doung, and Hogges doung, doe alſo heale the hurtes or

woundes of Trees. The water wherewith we water them, muſt not be fountaine water, or well water, if other may be had, but drawne from ſome muddie Lake, or ſtanding Poole. Moreouer, you muſt take heed, (as I alſo told you before) when we began to talke of planting of an Orchard) that your Trees ſtand a good diſtance aſunder, that when they are growen vp, they may haue roome enough to ſpread, and that the ſmall and tender, be not hurt of the greater, neither by ſhadow, nor dropping. Some would haue Pomegranate trees, and Myrtels, & Baies, ſet as thick together as may be, not paſſing nine foote aſunder: and likewiſe Chery trees, Plome trees, Quinces, Apple trees, and Peare trees, thirtie foote and more aſunder: euery ſort muſt ſtand by themſelues, that (as I ſaid) the weaker be not hurt of the greater. The nature of the Soyle, is herein moſt to be regarded: for the Hill requireth to haue them ſtand nearer together, in windy places you muſt ſet them the thicker. The Oliue (as *Cato* ſaith) will haue fiue and twenty foote diſtance at the leaſt. You muſt ſet your plantes in ſuch ſort, as the toppes be not hurt, or bruiſed, nor the barke, or rinde flawed off: for the barke being taken away round about, killeth any kind of Tree. You muſt alſo haue a regard of the ſhadow, what trees helpeth, and what trees it hurteth. The Walnut tree, the Pine tree, the Pytch tree, and the Firre tree, whatſoeuer they ſhadow, they poyſon. The ſhadow of the Walnut tree, and the Oke is hurtfull to Corne: the Walnut tree with his ſhadow alſo, is hurtfull to mens heads, and to all things that is planted neare it. The Pine tree with his ſhadow likewiſe, deſtroyeth yoong Plantes, but they both reſiſt the winde, and therefore good to encloſe Vineyardes. The Cypreſſe, his ſhadow is very ſmall, and ſpreadeth not farre. The ſhadow of the Figge tree is gentle, though it ſpread farre, and therefore it may ſafely enough grow amongſt Vines. The Elme tree, his ſhadow is alſo mild, nouriſhing whatſoeuer it couereth. The Plane tree though it be thicke and groſſe, is pleaſant. The Poplar hath none by the reaſon of the wauering of his leaues. The Alder tree hath a thicke ſhadow, but nouriſhing to his neighbours. The Vines is ſufficient for him ſelfe, and the mouing of his leafe, and often ſhaking, tempereth the heat of the Sunne, and in great raine well couereth it ſelfe. The ſhadow of all thoſe, is commonly

Shadow of Trees.

Dropping of Trees.

milde and gentle that haue long ſtalkes: the dropping of all Trees is nought, but worſt of all thoſe, whoſe branches grow ſo as the water can not redily paſſe through: for the droppes of the Pine, the Oke, and the Aſhholme, are moſt hurtfull, in whoſe company you may alſo take the Walnutte: the Cypreſſe (as *Plinie* ſaith) hurteth not. Moreouer, proyning and cutting, is very good and neceſſary for trees, whereby the dead and withered bowes are cut away, and the vnprofitable branches taken off: but to proine them euery peere is naught, though the Vine requireth cutting euery peere: and euery other peere, the Pyrtill, the Pomegranate, and the Oliue, whereby they will the ſooner beare fruit: the others muſt be the ſeldomer proyned. Oliue trees muſt be proyned in the fall of the leafe, after the ſetting of the ſeauen ſtarres: and firſt, they muſt be well dounged, as a helpe againſt their buttes. You muſt cut away all the old rotten branches that grow in the middeſt, and ſuch as grow thicke, and are tangled together, and all the waterbowes, and vnprofitable branches about them: the old ones are to be cut cloſe to the ſtocke, from whence the new ſpringes will ariſe.

Proyning.

Scarifying.

Scarifying alſo or launcing, is very holeſome for the trees, when they are ſereined with their leaues, & drineſſe of their barkes: at which time we vſe to launce the barke with a ſharpe knife, cutting it ſtraight downe in many places: which, what good it doth, appeareth by the opening & gaping of the rinde, which is ſtraightwaies filled vp with the body vnderneath. You muſt alſo trime and dreſſe the rootes of your Trees after this ſort: You muſt open the ground round about them, that they may be comforted with the warmeth of the Sunne, and the Raine, cutting away all the rootes that run vpward. The trees that you remoue, muſt be marked which way they ſtood at the firſt: for ſo teacheth *Virgil*.

Ablaqueation.

Remooving.

And in the barke they ſet a ſigne,
To know which way the tree did grow:
Which part did to the South encline.
And where the Northen blaſts did blow.

Alſo you muſt conſider well the nature of the Soyle, that you remoue out of a drie ground, into a moyſt, and from a barraine hill,

to a

to a moist plaine, and rather fatte, then otherwise. The poong plants being thus remooued, must in the second or third yeere be proyned, leauing still about three or fower branches vntouched, so shall they the better grow: thus must you vsually doe euery other yeere. The old tree we remoone with the toppes cut off, and the rootes vnperished, which must be helped with often dounging and watering. Apple trees that blossome and beare no fruite, or if it beare, they sodainly fall away, you shall remedie by slitting of the roote, and thrusting in of a stone, or a wodden wedge. Also if you water your Trees with Vryne that is old, it greatly auaileth (as they say) both for the fruitfulnesse, and pleasantnesse of the fruit. If the tree decay by reason of the great heat of the Sunne, you must raise the earth about it, and water the Rootes euery night, setting vp some defence against the Sunne. To cause their fruit to be quickly ripe, you must wette the little rootes with Vinegar, and Vyne that is old, couering them againe with earth, and oft digging about them. The Vryne of men, if it be kept three or fower moneths, doth wonderfull much good to plants, which if you vse about Vines, or Apple trees, it doth not onely bring you great encrease, but also giueth an excellent tast and sauour, both to the fruit and the wine: you may also vse the mother of oyle, such as is without salt, to the same purpose, which both must speedily be vsed in winter.

When Trees beare not, or hold not their fruit, a remedie.

THRA. We see that frostes and mistes, doo oftentimes great harme to Trees, haue you any remedy against it?

MARIVS. Against frostes and mistes, you must lay vp round about your Orchard, little Fagots made of stalkes, rotten bowes, or straw, which when the frostes, or mistes, arise, may be kindled, the smooke whereof auoydeth the daunger. You must saue also drie doung amongest your Vines, which when the frost is great, you may set a fire: the smooke whereof dispearseth the frost.

THRA. What if the Trees be sicke, and prosper not?

MARIVS. When they haue any sicknesse, they vse to powre vpon the Rootes the Lees of Wine mingled with water, and to sow Lupines round about them. The water also wherein Lupines haue been sod, powred round about, is very good (as *Plinie* saith) for Apple trees.

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THRA.

THRA. Trees are oftentimes also hurt with woormes.

MARIVS. If your Trees be troubled with woormes, there are diuers remedies, for the iuice of Woormewood destroyeth the Caterpillers. The seedes or graine, that are keeped in the iuice of Sengreene, or Houselike, are also safe from any woormes: also Ashes mingled with the mother of Oyle, or the stale of an Oxe, medled with a third part of Vinegar. Moreouer, they say, that the trees that are smooked with Brimstone, or Lime, are safe from hurtfull vermine: *Galbanum* likewise burnt vpon the coles, driueth them away. The blades also of Garlicke, the heades being off, so burnt (as the smooke may passe through the Orchard) doth destroy the Caterpillers: some mingle Soote with the seedes, and sprinkle them with water. *Democritus* writeth, that a woman in hir vncleanesse, vngirt, and hir Heare hanging about hir shoulders, if she goe bare foote round about the place, the Caterpillers will presently fall: but perhappes I trouble you with this tedious, or long discourse of Herbes, Plantes, and Trees, and therefore though there be much more to be spoken of, least I should seeme to ouer wearie you, I will make an end.

THRA. A trouble? no, you haue done me a singuler great pleasure, in declaring vnto me the right ordering of a Garden, and an Orchard, which not throughly entreated of by others, you haue briefely, and perfectly, to our great commoditie described. And whereas you haue largely spoken of our Trees at home, it remayneth for you to say some thing of the disposing of Woodes. It was my chaunce to passe yesterday, by a great Wood of Okes, and Coppisse, planted in very good order, and hard by, a Willow groue vpon the side of a Riuer, excellently wel ordered, where the Fieldes were enclosed round about with great Elmes, which greatly beautifieth your dwelling, and yeeld (I warrant) no small profite: I therefore greatly desire to heare some thing of this part of husbandrie.

Of Woodes.

MARIVS. Though it be without my couenant, and that you demaunde more then I promised, yet since you force mee, I will not refuse it, least you should thinke I would faile you in any thing. As touching Woodes, *Ancus Martius* (as *Petrus Crinitus* writeth) was the first in Rome that euer delt in them: the old Father had alwaies

alwaies a speciall regard of Woodes, wherefore *Virgil* saith:

If that of Woods I frame my song,
Woods vnto Princes doo belong:
If that of Woods I list to sing,
Woods may full well be seeme a King.

It was ordayned by the Romanes, that the Consuls should haue the charge of the Woodes, that there should no Tymber be wanting for buylding of Houses, and Shippes, and other Tymber workes, both publique, and priuate. The state of *Venis* at this day, obserueth the same order, pointing a priuate officer for their Woodes, who hath in charge as well to see to the yeerely planting of them, as to let that there be wanting no Tymber for their necessarie vses. The Wood that you told mee you passed by, is of Okes, Beeches, and other Mast trees: some part seruing for Tymber, and other for fewell. Of these therefore will I first begin to speak, and then of Oliue Groues, and Willowes, some of them be wilde, and grow of them selues, not needing any looking too, but such as daylie experience shewes, are nothing so good, as those that are planted. Woodes, and Forrestes, doe chiefely consist of Oke, Beech, Fyrre tree, Byrche, Pine, Pitch tree, Mastholme, Corke, wilde Oliue, Medlar, Crab tree, Iuniper, Cornell, and Pyrry: other Woodes haue other trees, according to the nature of the ground. The great Wood of Harteswald in Germany, as it runneth through diuers Countries, beareth in some place onely Oke, in others Beech, in others Fyrres. The Forrest of Arderne for the most part beareth Oke: *Montificello*, Larsh, Fyrre, Cornell, and Tamarice. *Monte D. S. Gothardo*, great aboundance of Chestnut trees. These wilder sort, though they grow of them selues, may yet well be planted, if you haue meete ground of the Acorne, and the Berry: each of them liketh some one kind of ground better then an other, as first *Theophrastus*, and after *Plinie* hath declared. In the mountaines delighteth the Fyrre tree, the Cedar, the Larsh, the Pitch tree, and such as beare Rosyne: as also the Holme, the Terebinth, the Chestnut, the Mastholme, the Oke, the Beech, the Iuniper, the Cornell, and the Dogge tree: though some of these also prosper well enough in the plaine. The Fyrre, the Oke, the Chestnut, the Fyrrebeech, the Mastholme, and the Cornell,

grow

grow aſwell in the Valley, as on the Mountaine: vpon the plaines you ſhall haue the Tamarix, the Elme, the Poplar, the Willow, the Haſell, the Walnut, the Hornebeame, the Maple, the Aſhe, and the Beech. You ſhall not lightly ſee the Plome tree, the Apple, the wilde Oliue, nor the Walnut, vpon the Mountaine, all ſuch as grow as well in the plaine, as vpon the mountaine, are larger, and fairer to the eye growing in the plaine, but are better for Timber, and fruit, vpon the Mountaine, except the Peare, and the Apple, (as *Theophraſtus* ſaith:) In Marriſh ground delighteth the Willow, the Alder, the Poplar, and the Priuey. And although the moſt Woodes doe ſpring of their owne nature, and accorde, yet are they by planting, labour, and diligence, brought to be a great deale more fayre and fruitfull: for as afore I told you, how fruit Trees are nouriſhed and brought vp in Impe Gardens, ſo are theſe wilde and fruitleſſe trees, ſet and planted for tymber and fewell. He that is diſpoſed to plant a Wood, muſt firſt according to his Soyle, chooſe his ſets: and if he haue them not ſpringing of his owne, let him make an Impe Garden of the ſeedes, encloſing well the ground with Hedge, Rampire, or Ditch, leaſt Sheepe, Goates, or any other cattell, come in to bite and brouze it: for whatſoeuer they haue once bitten (as it were infected with a deadly poyſon) periſheth: and therefore thoſe that meane to plant Woodes, either for tymber, fewell, or Maſt, muſt carefully prouide againſt theſe hurtfull enemies. The Countrey lawes haue therein well prouided, that where ſuch Springes are, they ſhall feede no Goates, nor ſuch Cattell. Amongſt the Maſt trees, and ſuch as ſerue for Tymber, the firſt place of right belongeth to the Oake, called in Greeke δρυς, in Latine *Quercus*, in Italian *Quercia*, in Spaniſh *Roble*, in French *Cheſny*, in Dutch *Eichenbaum*, he that will then plant an Oake Groue, muſt prouide him of ripe Acornes, not ouer dried, nor faultie, or any way corrupted: theſe muſt be ſow in good ground well tilled, with as great carefulneſſe as he plants his Orchard, and well encloſe it, that there come no Cattell in it: which (when they be ſomething growen) you muſt about February remoone to the place where you entend to plant your Wood: if you cut and proyne them, it is thought they will proſper the better for Maſt: but if you reſerue them for Timber, you muſt not touch the toppes,

The Oake.

that

that it may run vp the straighter and higher. In remouing them, you must make your trenches a foote and a halfe deepe, couering the Rootes well with earth, taking good heede you neither bruse them, nor breake them: for better you were to cut them. The Oke agreeth well enough with all maner of ground, but prospereth the better in Marshes, and watry places: it groweth almost in all grounds, yea euen in grauell and sand, except it be ouer dry, it liketh woorst a fat ground, neither refuseth it the mountaine. Wee haue at this daye an Oke in *Westphalia*, not farre from the Castle of *Altenau*, which is from the foote to the neerest bow, one hundred and thirty foote, and three elles in thicknesse: and an other in another place, that being cut out, made a hundred Waine loade: not farre from this place there grew an other Oke of tenne yardes in thicknesse, but not very hie: the Rouers in Germany, were wont to vse for their Ships hollowed trees, whereof some one (as *Plinie* saith) would carry thirtie men. The next amongst the mast trees is the Beech, in Greeke φηγὸς, in Latine *Fagus*, in Italian *Faggio*, in Spanish *Haya*, in French *Faus*, in Dutch *Buchen*, planted almost after the same manner that the Okes be. The Mastholme in Greeke πρῖνος, in Latine *Ilex*, in Italian where it is better knowen *Elice*, in Spanish *Enzina*, in French *Haussen*: it groweth hie, if it haue a ground meete for it: it prospereth vppon hilles, and likes not the plaine: it beareth Acornes lesser then the Acornes of the Oke, a leafe like a Baye, and is continually greene. The like hath the Corke tree, in Greeke φελλὸς, in Latine *Suber*, in Spanish *Alcornoque*, in French *Liege*, which is counted amongst those that beare masse, the barke whereof we occupie, for the flotes of our fishing nettes, and in Pantofels for winter: all other trees (sauing onely the Corke) if you spoyle them of their barke doe dye. And other Mast bearing Oke there is, called in Greeke δρῦς, in Latine *Quercus siluestrum*, in French *Chesne*, a kinde whereof some thinke the Cerre tree to be, called in Latine *Cerrus*, growing in wilde and barraine places. There are some that doe number the Chestnutte tree amongst the Mast bearers: but of this I haue spoken before. The best Mast is the Oke Mast, the nert the Beech and the Chestnutte, then the wilde Oke, &c. All verie good and meete for the fatting of Cattell, specially Hogges. Beech wood. Mast, and his differences.

The Oke Maſte, or Acorne, maketh thicke Bacon, ſound fleſh, and long laſting, if it be well ſalted and dried: on the other ſide, Cheſtnuttes and Beech Maſt, make ſweete and delicate fleſh, light of digeſtion, but not ſo long laſting. The next is the Cerre tree, that maketh very ſound and good fleſh: The Maſtholme maketh pleaſant Bacon, faire, and weightie: *Plinie* ſaith, that it was ordained by the law of the twelue Tables, that it ſhould be lawfull for any man to gather his owne Maſt, falling vpon the ground of his neighbour, which the Edict of the chiefe Juſtice doth thus interprete: that it ſhall be lawfull for him to doe three dayes together, with this prouiſo that he ſhall onely gather the Acornes, and doe no harme to his neighbour, as *Vlpianus* witneſſeth. *Glans* Maſt (as *Caius* ſayth) is taken for the fruit of all trees, as Ἀκρόδρυα. ſignifieth with the Greeke, though properly Ἄκρις δρυὸς, be thoſe fruits that are ſhelde, as Nuts, and ſuch other. Vpon theſe Maſte bearers there groweth alſo the Gall, in Greeke κηκὶς, in French *Noix, de Galle*, in Italian and Dutch, as in Latine, in Spaniſh *Agalla*, a little ball, rugged and vneuen without, whereof ſome be maſſie, ſome hollow, ſome blacke, ſome white, ſome bigge, ſome leſſer. It groweth (as *Plinie* ſaith) the Sunne riſing in *Gemini*, commonly all out ſuddenly in one night: in one day it wareth white, and if the heate of the Sunne then take it, it withereth: the blacke continueth the longer, and groweth ſometime to the bigneſſe of an Apple: theſe ſerueth beſt to curry withall, and the other to finiſh the Leather, the wooriſt is of the Oake: and thus of ſuch trees as beare Maſt. Now will I ioyne withall the principalleſt of the other trees, to make vp your Woodde, amongſt which are the Elme, and the Willow: the Elme in Greeke πτελέα, in Latine *Vlmus*, in Italian and Spaniſh *Olmo*, in French *Orme*, in Dutch *Vlmbaum*, and *Yffenholtz*: the planting whereof, becauſe it is to great vſe, and eaſily growes, we may not let paſſe: firſt, becauſe it groweth well with the Vine, and miniſtreth good foode to Cattle: ſecondly (as it is all hart) it maketh good tymber. *Theophraſtus* and *Plinie* doe both affirme the Elme to be barraine, peraduenture becauſe the ſeede at the firſt comming of the leafe, ſeemeth to lye hid among the leaues, and therefore it is thought to be ſome of the leafe (as *Columella* affirmeth.) He that will plant a Groue of Elmes, muſt

The Elme.

gather

gather the ſeede called *Samara*, about the beginning of March, when it beginneth to waxe yellow, and after that it hath dryed in the ſhadow two daies, ſow it very thicke, and caſt fine ſifted mould vpon it, and if there come not good ſtore of Raine, water it well: after a yeere you may remoue it to your Elme Groue, ſetting them certaine foote aſunder, and to the end that they roote not too deepe, but may be taken vp againe, there muſt be betwixt them certaine little trenches, a foote and a halfe diſtance: and on the roote you muſt knit a knot, or if they be very long, twiſt them like a Garland, and being well nointed with Bullockes doung, ſette them, and tread in the earth round about them. The female Elmes are better to be planted in *Autumne*, becauſe they haue no ſeede: at this day in many places, cutting off ſettes from the faireſt Elmes, they ſette them in trenches, from whence when they are a little growen, they gether like ſettes, and by this dealing make a great gaine of them: in the like ſort are planted Groues of Aſhes. The Aſhe in Greeke μελία, in Italian *Fraxino*, in Spaniſh *Freſno*, in French *Fraiſne*, in Dutch *Eſchen*: the Aſhe delighteth in rich and moiſt ground, and in plaine Countries, though it grow well enough alſo in dry groundes, he ſpreadeth out his Rootes very farre, and therefore is not to be ſette about Corne ground, it may be felled euery third or fourth yeere, for to make ſtaues for Uines. The Aſhe groweth very faſt, and ſuch as are forwards are ſet in February, with ſuch young plantes as come of them, in good handſome order ſtanding arowe: others ſet ſuch Aſhes as they meane ſhall make ſupporters for Garden Uines, in trenches of a yeere old, about the Calends of March: and before the thirty ſixth moneth they touch them not with any knife, for the preſeruing of the branches: after euery other yeere it is proyned, and in the firſt yeere ioyned with the Uine: if you vſe to cutte away the branches, they will grow to a very goodly height, with a round body, ſmooth, plaine, and ſtrong: *Plinie* writeth of experience, that the Serpent doth ſo abhorre the Aſhe, that if you encloſe fire and him with the branches, he will rather runne into the fire then goe through the bowes. Byrch, called in Greeke σημύδα, in Latine *Betula*, as *Theophraſtus* writeth in his fourth booke, is a tree very meete for woods: it proſpereth in cold Countries froſtie, ſnowie & grauelly, and in any barraine ground, Aſh groues.

wherefore they vse in barraine groundes, that serue for no other purpose to plant Byrches: it is called in Italian *Bedolla*, in Dutch *Byrken*, in French *Beula*, Pine Woodes, Fyrre Woods, Pitch tree, and Larsh, are common in Italy about Trent. The Pine tree in Greeke πίτυς or πίτυς, in Latine *Pinus*, in Italian and Spanish *Pino*, in Dutch *Hartzbaum*, is planted of his kernels, from October to January: in hotte and dry Countries: and in cold and wet places, in February or March: the kernelles must be gathered in June, before the clogges do open, and where you list to sow them, either vpon hilles or else where: you must first plow the ground and cast in your seede, as yee do in sowing of corne, and couer them gently with a light Harrow or a Rake, not couering them aboue a hand broad: you shal doe well, if you lay the kernels in water three daies before. The kernelles of the Pine are called in Greeke Ἐρίπυλλος, and πίτυς, in Spanish *Pinones*. The Firre tree in Greeke Ἐλάτη, in Latine *Abies*, in Italian *Abete*, in Spanish *Abeto*, in Dutch *Deamen*, loueth not to haue any great adoe made about it: if you be too curious in planting of it, it will grow (as they say) the woorse, it growes of his owne kernell in wilde mountaines, plaines, or any where. The Pitch tree in Greeke πίτυς, in Latine *Picea*, in Italian *Pezzo*, in Spanish *El pino de que se haza lapez*, in Dutch *Rodo-demem*, is a tree of the kind of Pines, and very like to the Pine sweating out his Rozen as hee doth: for there are fiue kindes of these Rozen trees, the Pine, the Pitch tree, the wilde Pine, the Firre, the Larsh, and the Tarre tree, the planting of them all is alike. The Alder, a tree also meete for woods, in Greeke ἄλνος, in latine *Alnus*, in Italian *Anno*, in Dutch *Elsen*, in French *Aulne*, it groweth in plaine and marish places neere to Riuers. *Theophrastus* saith, it yeeldeth a fruitfull seede in the end of Sommer: many places are commodiously planted with Poplar, whereof there are two sortes the white called in Greeke λεύκη, and the black Αἴγειρος: the white is called with the Italiãs *Populo bianco*, with the Spaniards *Alamo blanco*, the blacke of the Italians *Populo nigro*, of the other *Amalo nigrillo*, in French *Peuplier*, in Dutch *Peppelem*, it is planted of the branches & settes, & delighteth in watry places, or any other ground it prooueth very fast: the black hath the ruggedder bark, his leaues roũd while he is yõg, & cornered in his age, white vnderneath

The Pine.

Firre tree.

The Pitch tree

The Alder.

Poplar, white and black.

and

and greene aboue. The timber hereof is good for buildings, ſpecially within doores: his Wood is whitiſh within, and the rinde blackiſh, whence he hath his name. *Theophraſtus* addeth a third kinde called in Greeke ἄιγειρος, which ſome call the Poplar of *Libya*, and of the *Alpes*, it hath a rugged barke like the wilde Perry, a leafe like Iuy, and is in colour like a darke greene, ſharp at the one end, and broad at the other. The blacke Poplar groweth in great plenty about the lower partes of the Rhyne, though *Homer* call the Willow a fruitleſſe tree, becauſe his fruit turneth into cobwebs before they be ripe: yet is ẏ ſouereintie giuẽ him amongſt Woods that are vſually felde. *Cato* giueth the third place of huſbandry groundes to the Willowe, preferring it either before the Oliue Groue, Corne ground, or Meddow, for it is oftner to be cut, and groweth the thicker, neither is there ſo great gaine with ſo little charge in any thing: it delighteth in watry grounds, darke and ſhaddowy, and therefore is planted about Riuers and Lakes, howbeit it groweth in Champion, and other ground: it is planted of young ſettes, a foote and a halfe long, and well couered with earth: a wet ground requireth a greater diſtance betwixt them, wherein you ſhall do well to ſet them fiue foote aſunder, in order like the Sinke vpon a Die: in the dry ground they may be ſette thicker together, yet *Columella* would haue them fiue foote diſtant for paſſing by them. There are two ſortes of Willowes, one ſort enduring for euer, called Oſiar, ſeruing for making of Baſkets, Chaires, Hampers, and other countrie ſtuffe: the other kinde growing with great and high branches, ſeruing for ſtaies to Vines, or for quickſettes, or ſtakes of Hedges, and is called ſtake Willow: it is planted both of the twigge and of the ſtalke, but the ſtalke is the better, which muſt be ſette in a moyſt ground well digged, two foote and a halfe in the ground before it ſpring, and when the twigges are bare, you muſt take them from the tree when they be very dry, otherwiſe they proſper not ſo well: theſe ſtakes or ſettes being taken from the yoong ſtocke, that hath been once or twiſe cut, and in thickneſſe as much as a mans arme, you muſt ſet in the ground three foote, or a foote and a halfe deepe, and ſixe foote aſunder, laying good mould about them, fence them well, that there come no cattell to pill off the barke of them. After three

Willowes.

Oſyar.

or foure yeeres you may pull them, whereby they will grow and ſpread the better, and ſo you may continually cut them euery fifth, or fowerth yeere, whereof you may make ſets for planting of more, for the old ones are not ſo good to be occupied. The time of cutting of them, is from the fall of the leafe vntill Aprill, the Moone encreaſing, and in Weſterly, or Southerly windes: for if you doe it, the winde being in the North, we finde by experience they will not growe ſo well: you muſt cut them cleane away, that the old branches hurt not the young ſprings: ſome thinke the young Willow to grow the better the neerer the ground, and the ſmoother he is cut. The Oſier commonly groweth of his owne ſelfe, and is alſo planted of his roddes, in watry and mariſh groundes, the earth rayſed vp, and layd in furrowes: it is planted and ſprings moſt plentifully, where the earth is beaten vp with the rage and ouerflowings of the water: it ſerueth as a ſure defence for making of bankes and Walles in Marſhes, and that chiefely in March, the Moone encreaſing: the Oſier may be cutte euery yeere, or euery two yeere if you will. Lo, here haue you concerning Woodes what needefulleſt are for our Countrymen to plant: for as for Woods of Cedar, Cipreſſe, and other ſtrange trees, it is not for our Husbands to buſie themſelues about: wet and rich groundes that are meete for Corne, is alſo good to be planted with Okes, Beech, Willow, and Poplar, although the Oke and the Beech refuſe hillie, and lighter ground: Sandy, & barraine groundes, are good for Birch, Bramble, Broome, and Heath, as I haue ſufficiently ſaid before. Now perhaps you would haue me proceede with Coppiſſe Woods, that are continually to be feld.

For planting of Oſiers.

THRA. I would: if it were no paine to you.

MARIVS. Coppiſſe, or ſale Wood, were firſt brought vp (as *Plinie* ſaieth) by *Qu. Martius*. This kinde of Woode groweth commonly of his owne accord in Forreſts, and watrie places: but all Woodes are not for this purpoſe, for ſome trees there are, which if you cut and poule often, will fade and dye, as the Aſhe, the Iuniper, the Cherie, the Firre, the Apple, and the Pirrie: and ſome againe if they be not cut, wil periſh: the Vine requireth yeerely cutting, the Oliue, the Mirtell, and the Pomegranate, each other yeere. In cutting of them (as they are diuers) ſo is their order: for

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the Oke, as he groweth slowly, so is he not to be cut, before he be of seuen, or eight yeeres growth: and the neerer the ground you cut him, the better he growes, though he may be polled seuen or eight foote aboue the ground: The like is of the Beech, sauing that he may sooner be cut. The great Willow, and the Poplar, are cut after one sort, as I shewed a little before: though the Osier may be cut euery two yeere, or euery yeere. The Chestnut may be felde euery seuenth yeere, both for fewell, or for Vine staues. Trees are cut and pold sundry wayes, for either they are felde close by the ground, or the body is polde, when it comes to be of the bignes of a mans arme or more, as the Willow is. Coppised Woodes are commonly seuered into so many parcels, as may serue for yeerely felling, some still growing while others are a felling, and because some of them grow faster then other some, euery sort hath his place, and his season appointed. Some are felled euery fourth yeere, some euery fifth yeere, as the Willow, the Poplar, the Alder, and the Birch: some, once in seuen yeere, as the Chestnut, and some in more, as the Oke. It remaineth, that I now shew you the manner of felling of timber, and what timber is meetest for euery worke.

THRA. I haue a great desire to heare what time is meetest for felling of timber, which much auaileth (as they say) to the long enduring of it: after, I would knowe what timber is meete for euery purpose.

MARIVS. The season of felling, no doubt is to great purpose, whether it be for timber or fewell: for such trees as are felde either in the Spring, or in Sommer, though they seeme dry without, are notwithstanding full of moysture, and wetnesse within, which in burning, will neuer make good fire: and therefore Coppisse and fire Wood, your best felling is in Winter: and for building, it is best cutting of your trees in December, and January, the Moone being in the wane, from the twentie, to the thirty day. Yet are there some that say, they haue found by experience, that trees being cutte in January, are full of Sappe: and therefore thinke it better either to cut them before, or after. *Cato* sayth, the best time is about the twelfth of December, for the Timber Tree that beareth fruit, is best in season when his seede is ripe, and that which hath no seede, when it pilles it is time to cutte. Such as

are slawed, seruing for Pillers of Churches or other round workes, must be cutte when they spring: Shingles, & such as the Hatchet must slawe, are to be cuete betwixt midde Winter, and the beginning in the Westerne Wines. *Plinie* affirmeth the best season for felling of timber, to be while the Moone is in coniunction with the Sunne. *Vitruuius* an excellent fellow in building, doth will you to fell your timber from the beginning of *Autumne*, till the time that the Westerne windes begin to blow, the which windes begin to blow (as *Plinie* saith) about the first Ides of February: for in the Spring, all trees are as it were with child, and bend all their force to the putting out of their leafe, and their fruit. Since then they be Sappie, and not sound, by the necessitie of the season, they are made by the reason of their loosenesse feeble, and of no force: euen as the bodies of women, after they haue conceiued, from their conception, till the time of their deliuerance, are not iudged to be sound, or perfite. In like sort the Trees in *Autumne*, when the fruit and leaues begin to fall, the Rootes drawing from the earth their sufficient sustenance, are restored againe to their old estate: beside, the force of the aire in Winter doth fasten and make sound the Trees, and therefore it is then thought the best time to fell your timber. The maner of cutting of it is this, first to cut it till you come to the middle of the pithe, and so to let it stand, that the Sappe that is in it, may descende and droppe out: so shall not the moisture within putrifie, nor corrupt the timber, but passe clearly away. When you haue cut it, and you see it dry that it hath left dropping, you may cut it downe, and so shall you be sure it shall best serue your turne. There are some masters in building, that thinke it best after you haue sawen out your timber in boordes, to lay them in water for three or fowre daies, or if they be of Beech, for a longer time, eight or nine daies: and being ordered in this wise they shall neither (they say) be rotten, or worme eaten.

THRA. Now let vs heare what trees are best for timber.

MARIVS. There are diuers and sundry vses of timber: such as are barraine, are better then the fruitfull, excepting those sortes where the male beareth, as the Cipresse, & the Cornell: in all trees the parts that grow toward the North, are harder, & sounder, which are almost couered with mosse, as with a cloke against ỹ cold:

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the worſt are thoſe that grow in ſhadowie and watriſh places, the maſſier and better during, are they that grow againſt the Sunne: and therefore *Theophraſtus* deuideth all Timber into three ſortes, into clouen, ſquared, and round, of which the clouen doo neuer rent nor coarne: for the pith being bared, dryeth vp and dieth: they alſo endure long, becauſe they haue little moiſture. The ſquared, and the round, or the whole timber, doth coarne and gape, ſpecially the round, becauſe it is fuller of pith, and therefore reuneth & coarneth in euery place. And ſuch hie Trees as they eſe for pillers and maine poſtes, they firſt rubbe ouer with Bullockes doung to ſeaſon them, and to ſucke out the ſappe: for the moiſture doe alwaies come ſooner then the dry, and dry better to be ſawed then the greene, except the Oke, & the Bore, that doe more fill the teeth of the Sawe, and reſiſt it. Some againe refuſe to bee glued either with them ſelues, or any other, as the Oke, which cleaueth as ſoone to a ſtone, as any Wood, neither doe they well cleaue, but to ſuch as are of like Nature: to be bored, the greene is worſer then the dry: the light and the dry, are harder to be cut: for bandes and withes, the Willow, the Broome, the Byrch, the Elme, the Poplar, the Vine, the clouen Reede, and the Bramble are beſt: the Haſell will alſo ſerue, but the firſt is the Willow: they haue alſo a certain hardneſſe and faireneſſe, meete to be vſed in grauen workes. Among thoſe that ſerue for Timber, are moſt in vſe the Firre, the Oke, the Pine, the Larch, the Eſcle, the Elme, Willow, Cedar, Cypreſſe, the Bore, Byrch, Plane tree, Aldar, Aſhe, wilde Oke, Date tree, Beech, wilde Oliue, Maſtholme, Walnut, Maple, and Holly, and diuers others, vſed according to their nature, and the maner of the Countrey where they grow. The Firre tree, whereof I haue ſpoken before, giueth out Rozen, and his timber is meete for diuers workes, and greatly eſteemed for his heighth and bigneſſe, whereof are made the Ship Maſtes, and Pillers for houſes: For it is very ſtrong, and able to abide great force. It is vſed alſo in building, for great Gates, and Doore poſtes: in fine, good for any building within, but not ſo well enduring without doores, and very ſoone ſet afire. They vſed (as *Theophraſtus* ſaith) in the old time to make their Gallies and long Boates of Firre, for the lightneſſe ſake, and their Shippes for burden, of Pine tree, and Oke. Of Oke, I haue The Firre.

ſpoken

ſpoken a little before, the timber whereof is beſt, both for inward buildings, and for the weather, and alſo well enduring in the water: *Heſiodus* would haue yokes made of Oke. The wilde Oke ſerueth alſo well in water workes, ſo it be not neare the ſea: for there it endureth not, by reaſon of the ſaltneſſe: it will not be pearced with any Augur, except it be weete before: neither ſo will it ſuffer (as *Plinie* ſaith) any naile driuen in it, to be plucked out againe. The Maſtholme in Greeke πρινος, a tree well knowne in Italie, the Wood whereof is tough and ſtrong, and of colour like a darke redde, meete (as *Heſiodus* ſaith) to ſerue for Plow ſhares: it may alſo be made in Wainſcot, and Paile boorde. The Larſh tree in Greeke λαρίξ, in Italian *Larice*, in Dutch *Lerchenbaum*, was in the old time greatly eſteemed about the riuer *Poe*, and the Gulfe of *Veniz*, not onely for the bitterneſſe of the Sappe, whereby (as *Vitruuius* ſaith) it is free from corruption and wormes, but alſo for that it will take no fire, which *Mathiolus* ſeemeth with his argumentes to confute. It is good to ſuſtaine great burdens, & ſtrong to reſiſt any violence, of weather, howbeit they ſay, it will rotte with ſalt water. The Eſcle is a kind of Oke, called in Greeke πλατύφυλλος, in Latine *Eſculus*, is ſoone hurt with any moiſture: the Elme, the Willow, and the Poplar, whereof I haue ſpoken before, will very ſoone rotte, and corrupt: they will ſerue well enough within doore, and for making of Hedges. The Elme continueth very hard, and ſtrong, and therefore is meete for the cheekes and poſtes of Gates, and for Gates, for it will not bowe, nor warpe: but you muſt ſo diſpoſe it, that the toppe may ſtand downeward: It is meete (as *Heſiodus* ſaith) to make Plow handels of. The Aſhe (as *Theophraſtus* ſaith) is of two ſortes, the one tale, ſtrong, white, and without knottes, the other more full of Sappe, ruggedder, and harder. The Bay leafe (as *Plinie* ſaith) is a poyſon to all kind of Cattell: but herein he is deceiued, as it ſhould appeare by the likelineſſe of the name, φιλυρα or σμιλαξ is the yong Tree, whoſe leaues (as is certainly tried) killeth all ſuch beaſtes as chaw not the cudde. Aſhe beſides his manifold vſe other waies, maketh the beſt and faireſt horſemens ſtaues, whereof was made the ſtaffe of *Achilles*, which *Homer* ſo greatly commendeth: it is alſo cut out in thinne boordes. The Beech, whereof I haue ſpoken before, although it be brittle

The Maſt holme.

The Larſh.

and

and tender, and may be so cut in thinne boordes, and bent, as he seemeth to serue onely for Caskets, bores, and Coffers: his colour being very faire, yet is he sure and trusty in bearing of weight, as in Axeltrees, for cartes or waines. The barke of the Beech, was vsed in old time, for vessels to gather Grapes in, and other fruit, and also for Cruettes, & vessels to doe sacrifice withall: and therefore *Curius* sware, that he brought nothing away of all the spoile of his enemies, but one poore Beechen Cruet, wherein he might sacrifice to his Gods. The Alder is a tree with streight bodie, a soft and reddish wood, growing commonly in the watrie places, it is chiefely esteemed for foundations, and in water workes, because it neuer rotteth lying in the water: and therefore it is greatly accounted of among the Venetians, for the foundations of their places, and houses: for being driuen thicke in piles, it endureth for euer, and sustaineth a woonderfull weight. The rinde is pulled off in the Spring, and serueth the Diar in his occupation: it hath like knots to the Cedar, to be cut and wrought in. The Plane tree is but a stranger, and a new come to Italie, brought thither onely for the commoditie of the shadow, keeping off the Sunne in Sommer, and letting it in, in Winter. There are some in *Athens* (as *Plinie* saith) whose branches are 36. cubites in breadth: in *Licya* there is one for greatnesse like a house, the shadow place vnderneath containing 81. foote in bignesse: the timber with his softnesse hath his vse but in water, as the Alder, but drier then the Elme, the Ashe, the Mulbery, and the Chery. The Linder in Greeke φιλυρα, and so in Italian, in Spanish *Latera*, in Dutch *Lynden*: this Tree *Theophrastus* counteth best for the workmen, by reason of his softnesse: it breedeth no woormes, and hath betwixt the Barke and the Wood, sundry little riendes, whereof they were wont in *Plinies* time to make Ropes and Withes. The Birch is very beautifull and faire: the inner rinde of the tree called in Latine *Liber*, was vsed in the olde time in steed of Paper to write vpon, and was bound vp in volumes, whereof bookes had first the name of *Libri*: the twigges and bowes be small, and bending, vsed to be carried before the Magistrate among the Romanes, at this day terrible to poore boyes in Schooles. The Elder tree, called of *Dioscorides* Ακτη. in Latine *Sambucus*, in Italian *Sembuco*, in Spanish *Sauco*,

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in French *Suseau*, in Dutch *Hollenter*, both of all other trees soonest and easeliest grow, as experience beside *Theophrastus* doth teach vs, and though it be very full of pitch, yet the wood is strong and good: it is hollowed to diuers vses, and very light staues are made of it. It is strong and tough when it is dry, and being laid in water, the rinde commeth off as soone as he is dry. The Elder wood is very hard and strong, and chiefely vsed for Boare speares, the roote (as *Plinie* saith) may be made in thin boordes. The Figge tree is a tree very well knowen and fruitfull, not very hie, but somewhat thicke (as *Theophrastus* saith) a cubite in compasse, the tymber is strong, and vsed for many purposes, and sith it is soft, and holdeth fast whatsoeuer stickes in it, it is greatly vsed in targets. Bore tree, in Greeke πύξος, in Italian *Boxo*, in Spanish *Box*, in French *Bouys*, in Dutch *Buxbaum*, an excellent tree, and for his long lasting, to be preferred before others. The Bore that turned is, (saith *Virgil*) Iunipe, called both of *Theophrastus* and *Dioscorides*, ἄρκευθος, because it driueth away vermine: for with his sauour, toades and snailes, and such like are driuen away, in Latine it is called *Iuniperus*, in Italian *Ginipro*, in Spanish *Enebro*, in French *Geneura*, in Dutch *Wacholter*: it is very like to Cedar, but that it is not so large, nor so hie, though in many places it groweth to a great height: the timber whereof well endureth a hundreth yeeres. And therefore *Haniball* commaunded, that the Temple of *Diana* should be built with rafters and beames of Iuniper, to the end it might continue. It also keepeth fire a long time, in so much as it is said, the coales of Iuniper kindled, haue kept fire a yeere together: The Gumme whereof our Painters vse. The Cedar Tree, in Greeke κέδρος, in Latine *Cedrus*, and almost like in other tongues: the hardnesse of this timber is onely praised, and that it will neuer rotte, nor be woorme eaten, but continue euer. *Salomon* built that noble Temple of God at Hierusalem of Cedar: It is very meete for the building of Palaces and Castels: the Cedar, the Eben, and the Oliue tree, doe neuer chinke, nor coame. Images of Goddes and Saincties were alwaies made of Cedar, because it euer yeelded a moisture, as though it sweat. *Theophrastus* writeth of Cedars in *Syria*, of fower elles and more in compasse. The Rosen and Pitch of the Cedar tree, is called in Greeke κέδρια. The Cypresse, and the

Iuniper.

The Cedar.

The Cypresse.

Pine,

Pine, doo endure a long time without either woorme, or rotting: *Plinie* commendeth Gates of fower hundred yeeres old. The Pine (saith *Theophrastus*) is of a great strength, and very meete for the streightnesse and handsomnesse, to be employed in building. The Walnut tree is a great tree, and commonly knowne, whose timber is much vsed in seelings and tables. *Theophrastus* writeth, that the Walnut tree before it falleth, maketh a certain kind of noise, which it once happened in *Antandro*, the people being greatly afrayde, fled sodainly out of the Bathes. The wilde Oliue, in Greeke Ἀγριέλαια, in Latine *Oleaster*, in Italian *Oliue Saluatico*, in Spanish *Azenuche*, in French *Oliue sauuage*, in Dutch *Wilder Olyboum*, of his Wood is made the hafts and handels of wimbles and Augures. Holme, or Holly, is a tree whose leaues are full of prickels, round about the leafe, and the barke, being both continually greene, the berries like the Cedar: of the rinde of the rootes they make Birdlime: the Wood is very hard, the braunches will well winde and bowe, and therefore serueth excellent well for quickset hedges: the Dutchmen call it *Hulsen*. The Maple, called by *Theophrastus* σφένδαμνος, in Dutch *Masselterbaum*, for the beautie of the wood is nert to the Cedar, hauing a very faire and pleasant graine, of the resemblance called Peacockes taile: with this wood Tables are couered most gorgeous to the eyes, and other fine workes made, specially of the knobbes or wennes that grow out of it, called *Bruscon* and *Molluscon*: of which the knobbes hath the fairer and the more courled graine. *Molluscon* is a more open graine, and if so be it were of sufficient breadth for Tables, it were to be preferred before the Cedar: now it is but seldome seene, and that in writing tables, or about beddes. There is also a knob, or a wen, growing vpon the Alder, but a great deale worse then that of the Maple. The Date tree, whereof we haue spoken before, hath a very soft wood. The Corke his timber is tough: but now for a farewell, I will shew you what workes euery timber is meete for. The Firre, the Pine, and the Cedar, serue for Shippes, for Gallies, and Lighters, (as *Theophrastus* saith) are made of Firre, for the lightnesse sake: Shippes of burden, are made of Pine. Vpon the French & Germany seas, they chiefely vse Oke about their Ships: the selfe same timber also serueth well for building of houses, specially

The Pine.

The Walnut tree.

The wilde Oliue.

The Holly.

The Maple.

The Date tree.

The Corke.

What turne each timber serues.

For Shippes.

For Houses.

rially the Cedar, and the Cypresse. The Firre, the Poplar, the Ash, and the Elme, are meete for the inner partes of the house, but they serue not so well in the weather, as the Oke doeth. For conueighances of water, the Alder, the Pine, and the Pitch tree, are best made in Pipes: being well couered in the earth, they last a woonderfull while, but if they lie vncouered, they sooner perish: The Oke also, the Beech, and the Walnut, endure very well in the water. The Timber that longest endureth, is the Oliue, the Oke, the wilde Oke, and the Wastholme: For as *Plinie* witnesseth, the Oliue hath been seen to stand two hundred yeeres, and like the Cedar, and the Cypresse, as hath been said before: for Rafters and Portisse peeces, the Elme, and the Ashe, by reason of their length serues best. The best to beare weight, is the Firre, and the Larsh, which howsoeuer you lay them, will neither bende, nor breake, and neuer faile, till woormes consume them. Contrariwise, the Oliue tree, and the Oke, will giue and bende, and so will the Poplar, the Willow, the Elme, and the Byrch. The Date (a worthie Tree) bendeth vp against his burden. The Poplar on the other side, giueth at euery light thing. The Elme, and the Ashe, though slowly are easely bent. These also are easely wound & bent: the Willow, the Byrch, the Broome, the Oke, and the Oken boordes. Shingles, to couer houses withall, are best made of Oke, Beech, & such others as beare Mast: and also of such as yeeld Rozen, as the Pine, and the Pitch tree: the Pitch tree, and the Oke, serue best for Cuppes, Tankardes, and such like. Those that are cut for Wainscot and thinne boordes, the Cerre tree, the Terebinth, the Maple, the Bore, the Date, the Wastholme, the roote of the Elder, and the Poplar. For the beautifying of Tables, serueth chiefely the Maple, the Ash, the Walnut, and sometimes the Cherie, and the Peare: but the precioulest are the Cypresse, and the Cedar Tables. For Axeltrees, Wheeles, & Spoakes, serueth the Oke, the Maple, and the Beech. *Virgil* doth also appoint the Cedar, and the Cypresse to this vse. Hereof they make the Spoakes of Wheeles, and hereof Carts and Waines. The selfe same Timber also serueth (as *Hesiodus* saith) for Plowes, Yokes, and Wagons: but that he addeth hereunto the Ashe, and the Cerre tree, and as the Ashe for his softnesse, so the Wastholme for his hardnesse. For Pullies, Wimbles, Sheathes, and

For water courses.

For bearing of weight.

For Shingles.

For Tables.

For Axeltrees.

Yokes and Plowes.

and Pallets, the meetest are the wilde Oliue, the Bore, the Pall-holme, the Pedlar, the Elme, the Ashe, the Mayle, and the Bramble: but the greater sort of Mallots, or Beetles, and the Wheeles, and Pullies for Mils, and Welles, are made of Pine, and Walnut tree. *Cato* would haue the Waines and Cartes made of Holly, Bay, and Elme. *Hyginus* would haue the handles, or steeles of Husbandmens tooles, made of Dogge tree wood, Holme, Cerre tree, and (which we haue commonly in vse) Bore. Targets (as *Theophrastus* saith) made of Willow, and Vine, for being pearced, they close the harder together: but the Willow is the lightest, and therefore the better. The Figge tree also, and the Lindre, the Byrch, the Poplar, and the Elder, serue as well for Targettes. The best wood for Horsemens staues is the Ashe, and (as *Virgill* saith) for valiant staues, the Mirtill: the Ewe tree serueth (as the same *Virgill* witnesseth) for Bowes:

For Hafts and Handles.

For Targets.

For chasing staues.

The Ewe Tree for the Persian bowe the bend.

For Gates, they vse the Elme: for Hampers, or Baskets, all such as easily bend. For Cupplinges and Rafters of houses, the Elme: and the Ashe for thinne boord, the best to cleaue the Firre, the Poplar, and the Beech: for long during, and abiding the weather, and standing in water, the Oke is commended, for which the other serue not, saue for the water, the Beech, and the Alder: for fire, and light, are vsed the Firre, the Pitch tree, and the Pine. The best coales are made of the fattest wood, as the Oke, and the wilde Oke: but the finers rather desire the coales that are made of Pine tree, because they better abide the blowing, and die not so fast as the other. The Cerre tree, though the tymber, be of no great vse, yet serueth it well to make coale of for the Base Forges, because as soone as the Bellowes leaue, the fire ceaseth, and there is little waste in it: but for building, the timber thereof is altogether vnprofitable, because it doth easilie breake, and moulder away: but being in postes vnhewed, it serueth well enough within doore. The aptest to take fire, is the Figge tree, and the Oliue tree. The Figge tree because it is soft and open: the Oliue tree, for the fastnesse and the fatnesse. The Larch tree (as *Vitruuius* saith) resisteth the fire, though *Mathiolus* (as I said before) goeth about to disproue it. In all the bodies of trees, as of liuely creatures, there is

For water workes.

For Coaling.

skinne,

skine, sinewes, blood, flesh, vaines, bones, and marrow: their skinne is their barke, of great vse among country people: the vessels that they gather their Uines, and other fruites in, they make of the barke of Linde tree, Firre, Willow, Beech, and Alder. The Corke hath the thickest barke, which though he loose, he dieth not, for so beneficiall hath nature been to him, that because he is commonly spoiled of his barke, she hath giuen him two barkes. Of his barke, are made Pantoffels, and Slippers, and Floates for fishing nettes, and angles: if the barke be pulled off, the wood sinkes: but the barke alwaies swimmeth. The next to the rinde in most trees, is the fat, the softest and the woorst part of the tree, and most subiect to woormes: therefore it is commonly cut away. The sappe of the tree, is the blood, which is not alike in all trees, for in the Figge tree it is milkie, which serueth as a Rennet for Cheese. In Cherie trees, it is gummie: in Elmes, saltish: in Apple trees, clammie and fat: in Uines, and Peare trees, watrish: the commonly spring the best, whose Sappe is clammiest. The iuice of the Mulberie, is sought for (as *Plinie* saith) of the Phisitions. Next to the fatte, is the flesh, and next to that, the bone, the best part of the timber: all trees haue not any great quantitie of this fatte and flesh, for the Bore, the Cornell, and the Oliue, haue neither fatte, nor flesh, nor marrow, and very litle blood: as neither the Seruisse, and Alder, haue any bone, but both of them full of marrow. Reedes for the most part haue no flesh at all: in flesh of trees, there are both vaines and arteries, the vaines are broder, and fairer: the arteries, are onely in such trees as will cleaue, by meanes of which arteries it commeth to passe, that the one end of a long beame laied to your eare, if you doo but fillip with your finger vpon the other end, the sound is brought foorthwith to your eare, whereby it is knowen, whether the peece be straight and euen or not. In some trees there are knottes one the outside, as the wenne, or the kernell in the flesh of man, in the which there is neither veine, nor arterie, a hard knop of flesh being clong, and rolled vp in it selfe: these are most of price in the Ceder, and the Maple. In some, the flesh is quite without veines, hauing onely certaine small stringes, and such are thought to cleaue best: others, that haue not their stringes, or arteries, will rather breake then cleaue: as the Uine, and the Oliue, will rather

The barke.

breake

breake then cleaue. The whole body of the Figge is fleshie: as the body of the Wastholme, the Cornell, the wilde Oke, the Mulbery, and such others as haue no pith, is all bony. The graine that runneth ouerthwart in the Beech, was taken (as *Plinie* saieth) in the old time for his arteries.

THRA. There are other commodities beside the timber to be gathered of these trees.

MARIVS. Very true: (For as I saied before) of the Medlar, the Oke, the Chestnut, the Pine, and the Beech, these trees that growe in the Woodes, besides their timber, beare fruit also, good and meete to be eaten. So of the Firres, the Pitch trees, and the Pines, we gather Rozen and Pitch, to our great commoditie and gaine: as of the Oke, the Beech, the Chestnut, the Medlar, and the Pine, we haue fruit both meete for man, and also good for feeding of Hogges, and other Cattell. In time of Dearth, both our forefathers, and we, haue tried the good seruice, that Acornes in bread hath done, yea, as *Plinie*, and others haue written, they were woont to be serued in amongst fruit at mens tables. Neyther is it vnknowen what great gaines some countries get by Acornes, Rozen, and Pitch: The Gall also groweth vpon these Acorne bearing trees, whereof I haue spoken before. Amongst all the trees out of which runneth Rozen, the Tarre tree, a kinde of Pine, is fullest of Sappe, and soker then the Pitch, both meete for fire, and light, whose boordes we vse to burne in stead of candels. The Cedar sweateth out Rozen and Pitch, called *Cedria*. Moreouer, of Trees, is Birdlime made, the best of the Cerre tree, the Wastholme, and the Chestnutte, specially in the Woodes about *Sene*, and neere the Sea side, where they are carefully planted in great plentie, by the Birdlime makers: For they gather the berries from the trees, and boile them till they breake, and after they haue stamped them, they wash them in water, till all the flesh fall away. *Plinie* affirmeth, that it groweth onely vpon Okes, Wastholme, Skaddes, Pine trees, and Firre. Birdlime is also made of the rootes of certaine Trees, specially of the Holly, whose rootes and barkes withal they gather, and lay them vp in Trenches, couered with leaues in a very moist ground (some doe it in doung) and there they let them lie till they rot, then take they them out and beate them, till they Birdlime.

ware clammie, and after wash them in warme water, and make them vp in balles with their handes, it is vsed (beside other purposes) for the taking of Birdes. Besides all this, there sweateth out of Trees a certaine Gumme knowen to all men, as of the Chery tree, the Plome tree, the Iuniper, the Oliue, the Blackthorne, the Iuie, and Almond. Out of the Iuniper, commeth Vernish: out of the Mirrhe, Stozar: out of the white Poplar, Amber. *Plinie* writeth, that Amber commeth out of certaine Pine Trees in the fatte, as a Gumme doth from the Cherie tree. And thus these things that I haue heere at your request declared, touching the order of Planting and Sowing, I beseech you take in good wooꝛth: you heare my wife calleth vs to Supper, and you see the shadow is ten foote long, therefoꝛe it is hie time we go.

Vernish.

Amber.

THRA. I giue you most harty thankes, that you haue thus friendly entertained me in this your faire Orchard, with the sweete description of these pleasant Herbes and trees.

IVLIA. Sir, your Supper is ready, I pray you make an end of your talke, and let the Gentleman come in here into this Arber.

MARIVS. Come, let vs go.

Soli Deo laus & gloria, per Christum Iesum

The ende of the second booke.

The

The third Booke, of feeding, breeding, and curing of Cattell.

Hipoconus, Euphorbus, Hedio, Eumæus.

THat the breeding and feeding of Cattell is a part of Husbandry, & neere ioined in kinred to the tilture of the ground, not only appeareth by *Virgil*, the prince of Poets, who hath in his Georgickes throughly set foorth the order thereof, but also by the witnesse of the more ancient Philosophers, *Xenophon*, and *Aristotle*. The like doth our common experience at home dayly teach vs: for albeit the trade of Tillage and keeping of Cattell is diuers, and the maner of occupying many times contrary the one to the other: as where the Grasier and Breeder, requireth a ground full of grasse and pasture, the Husbandman on the other side, a ground without grasse, and well tilled: yet in these their diuers desires, there appeereth a certaine fellowship and mutuall commodity redounding in their occupying of one the other, which *Fundanius* in *Varro* doth seeme by an apt comparison to proove: as in a couple of Shalmes, or Recorders, saith he, that one differeth in sound from the other, though the musick and song be all one (the one sounding the treble, the other the base) in like manner may we terme the grasiers trade the treble, and the tillers occupation the base, following *Dicæarchus*, who reporteth, that at the beginning, men liued onely by breeding and feeding of cattell, not hauing as yet the skill of plowing & tilling the ground, nor planting of trees. Afterwards in the lower degree, was found out the maner of tilling of the ground, & therfore beareth the base to the feeder, in that it is lower, as in a couple of recorders the base to ỳ treble. So this vsing to keep cattel for plowing, cariage, dunging of our ground & other cõmodities, & on the other side, to til the ground for feeding & maintenance of our cattell, it comes to passe, ỳ though the maner of occupying in tillage, & keeping of cattell be diuers, yet one of thẽ so serueth ỳ turne of the other ỳ as it seemeth they cannot wel be asunder: for without the seruice of Horse & Oxen, we can neither plow nor dung our ground. Chaffe, straw, & other offal of corne,

is meeter to be spent vppon the ground, then to be solde both for the Farmers behoofe, and the Lords, and better bestowed vppon the houshold cattell, then vpon the forreiners. Besides, the doung of the cattell enricheth the ground, and bringeth great encrease: and whereas there is no place (as *Columella* saith) but in the tillage of the ground, they haue as much neede of cattell, as men: the cattell serue not onely for the tilling of the ground, but also to bring in corne, to beare burdens, carry doung for the grounde, and also for breede, and increase of the Stocke: whereby they haue their name *Iumenta*, of helping, because they helpe and further vs, either in our labours by plowing, or bearing. Neither is it onely sufficient to nourish, and bring vp this kind of great cattell called *Iumenta*, but also the other lesser sorte of Beastes, as Sheepe, Swine, Goates: and of Foules, Geese, Peacokes, Duckes, Pigions, Hennes, Chickins, and other Poultrie, and things belonging to husbandry, wherewith the good husband, beside his owne sustenance maketh great gaine: and if the ground be for it, and Pales fauourable, there ariseth oftentimes as great profite, as in sowing of Corne, and that with smaller charges. For a proofe that feeding is gainefull, the wordes *pecunia* money, and *peculium* substance, or riches, being both deriued from the Latine name of cattels, may very well serue: for in the old time they vsed their cattell in stead of money, and their common penalties and fines, taken in cattell, the greatest, was thirtie Oxen, and two Sheepe, euery Oxe valued at v. s. vi. d. and euery Sheepe at vi. d. the smallest was a sheepe: the very like is yet obserued with the noblest and warlikest people, whose substance lieth altogither in cattell. *Cato* being once asked by what part of Husbandry a man might soonest be made rich: made answere, by grasing: and being asked againe, which way he might gette sufficient liuelihoode: he answered, by meane grasyng. Moreouer, that the worthinesse and first originall of keeping of cattell is of greatest antiquitie, and that the trade thereof hath alwaies, from the time of the Patriarkes, hitherto beene counted most honest, as well the scriptures, as profane histories doe witnes, which kinde of life, how acceptable it hath alwayes beene to God, by those that liued in the first world, doth plainely appeare. The scripture sheweth how graciously the Lord accepted

The worthinesse and antiquitie of keeping of cattell.

the

the sacrifice of *Abel*, a keeper and feeder of sheepe, besides *Seth*, *Noe*, *Abraham*, *Loth*, *Iacob*, *Iob*, *Amos*. Holy and blessed men are commended for keeping, and feeding of Cattell, whereby attaining to great wealth, they sustained themselues, their Wiues, their Children, and their huge families. The Somes of *Iacob*, when as they were demanded by the king of *Aegypt* what maner of life they led: made answere, that they were feeders and keepers of Cattell, from which trade *Lot*, *Moyses*, *Saule* and *Dauid*, were by the will of God aduanced to the Crowne, as among the Gentiles the most auncient, and famous Princes were, some of them brought vp by Sheaperds, and some Sheaperds themselues. *Romulus* and *Cirus* being mightie Emperours, were brought vp among Sheaperdes. Besides *Galerius Maximus*, *Constantine*, *Probus*, and *Aurelianus*, came all from the Orestall, to the Imperiall Seate. *Homer* commendeth *Vlisses* his Swineherd, for his great valiance and noblenes. That the valiant and noblest people haue professed this trade, the Italians, Germanes, and Swetzers can testifie, whose Countries being now growne to more delicacie, then they were wont to be, were wonted alwaies, when their doings were most famous, to glory and vaunt themselues of this life, as at this day the goodliest and wyselt doe. And therefore the auncient writers, as well Greekes, as Latines, do count the chiefest wealth to be in the numbers of Sheepe, Cattell and Fruit: for which estimation the Cattell were supposed to be clad in Golden Coates: whence sprang first the fable of the Golden Fleese of *Colcos*, which *Iason*, and his companions attempted to fetch, and of the Golden Apples, kept by the daughters of *Atlas*. Besides the signes of Heauen, the Seas, Mountaines, and Countries, do beare their name of Beasts: among the Starres, the Ramme, the Bull: the Mountaine, *Taurus*: and the Sea, *Bosphorus*. *Italy* tooke his name of Calues. Moreouer the keeping of Cattell is the worthier, in that it hath some resemblance of the state of a gouernor: and therefore the Prophets in their Oracles, and Poets in their verses, doe oftentimes call Kings and Princes by the names of Shepheardes, and feeders of the people. Yea the Lord of the whole world doth call himselfe a Shepheard. Since it appeareth by these examples, of what worthinesse keeping of Cattell is, and how neere it is linked with til-

The worthines and antiquitie of keeping of cattell.

lage, I haue here thought good, after the entreating of Tillage, Gardning, and Orchards, to describe as briefely as I can, the order and maner of keeping of Cattell: which skill though *Varro* deuideth onely into three partes, I haue deuided into foure. In the first part I put the great Cattell for burden, as Horses, Asses, Mules, Camels: in the second part the lesser sort, as Sheepe, Goates, and Swine: in the third, such things as are belonging to the keeping and safegard of Cattell, not for the profit they yeeld of themselues, but for their necessarie vse, as shepheards Dogs, and Cats: of these three parts in this third booke I entreat of: the fourth I referre to the fourth booke. Hauing thus declared the contention betwixt keeping of Cattell, and tillage, with the worthinesse and antiquitie thereof, I meane now to prosecute such things as are belonging to the same. I haue brought in the Masters and keepers of euery kind of Cattell, and resting themselues vpon the holliday in the greene grasse, and the Sommers shadow, euery one declaring his skill and knowledge, according to his profession. The parties are *EVPHORBIVS* the Netherd: *HIPPOCOMVS* the Horsekeeper: *HEDIO* the Shepheard, and *EVMEVS* the Swineheard.

EVPH. How sirra HIPPOCOMVS, whither wander you? Do you not know that it is holiday, a day to dance in, and make mery at the Ale house?

HIPPO. Euery day is holly day with lazy and slouthfull marchants: it lieth me vpon to looke to my profit, to see whether my horses feede well, and that they take no harme. The pastures are so burnt with the heat of Sommer, that I am affraid for want of meate, they will seeke to breake into other grounds, and so hurt themselues.

EVPH. Why bring you not them into this feeld, where there is both a good grotten, & plety store of grasse amõg the headgroues.

HIPPO. You perswade me not to the woorst.

EVPH. Come on then, bid *Mastix* your boy bring hither your horses, and you your selfe, sit you downe vnder this Hasell, that will yeeld vs both shadow and Nuttes, and we will send for EVMEVS, and HEDIO, if you thinke good, and we will passe away the time with such talke as we shall finde.

HIPPO.

HIPPO. Agreed, Go *Mastix*, fetch hither the Horses, with the Colts and the Asses.

EVPH. And you *EVMEVS*, and *HEDIO*, bring your heards together, and come hither, euery man shall lay downe his shot, as they vse in the Tauerne, but without money or any charges, declaring at large what belongeth to the Cattell he keepeth. Your Horses HIPPOCOMVS are yet in good plight, I saw the horses of our neighbour *Agrius* of late which are leaner and barer a great way. Of Horses.

HIPPO. Peraduenture they haue not so good looking vnto, though they neither want pasture, nor are much laboured, but mine on the other side, are continually laboured, and are not so well fed, but better looked vnto then my neighbors.

EVPH. Well, since both time and place requireth it, I pray you let vs heare what you can say, touching the charge and looking too of horses.

HIPPO. Surely I haue not so much money to tell, but I may well be at leysure, and therefore since you are so earnest with me I will not denie your request: although that of this matter, an honest & learned Gentleman of England, master Thomas Blundeuile hath so throughly written to his commendation and benefit of his country, as there cannot be more said: I referre you therefore wholy to him: notwithstanding briefely I wil shew you my fansie. Among all other creatures that we vse in our labour, the Horse may worthiest chalenge the chiefest place, as the noblest, the goodliest, the necessariest, and the trustiest beast that we vse in our seruice, and since he serueth to so many vses, I should here bestow some time in his praise, and in declaring his seruice, but for this, another time shall better serue.

EVPHOR. We onely here desire to know the signes of a good, and an excellent Horse, and the right manner of ordering him.

HIPPO. First, you shall know that Horses serue for sundry purposes. Some, for the Plowe, the Carte, and the Packsaddle, others, for light Horses, Coursers, and Horses of seruice, others againe, for Stallions, & breeders: and therefore they must be chosen according to their seruice. Souldiers, and men of Warre, desire a fierce Horse, couragious, swift, & well coloured. The Husbandman

would haue his Horse gentle, large bodied, and meete for trauell and burden. Notwithstanding, the breeding and bringing vp of them, is almost one: for in their breeding, we hope to bring them all to the Saddle.

EVPHOR. What things are most to be considered in their breeding.

HIPPO. He that hath a fancie to breede Horse, must first prouide himselfe of a good Race, and then of good ground, and plentie of pasture, which in other Cattell, ought not to be so greatly obserued, but in Horses there must be speciall care thereof. And therefore, you must first see that your Stallion be of a good race, well proportioned, and framed in euery point, and in like sort, the Mare. Some reckon their goodnes by their Countreies, wherein they take for chiefe, the Genet of Spaine, the Courser of Naples, the Sarmacian Horse, the *Peloponesian*, the *Turkey*, and the *Thessalian*: but these serue chiefely for running, and swiftnesse. For largenesse of body, enduring of labor, and fitnesse for breede, the best are to be had out of *Freeseland*, *Holland*, and *Artoys*. The shape and proportion of the Horse, ought heedily to be considered, for the very looke and countenance oftentimes declareth the goodnesse of his nature. Therefore you must diligently consider his making, from the heele to the head, and first you must chiefely regarde his feete: for as in viewing of a house, it is in vaine to regard the beautie of the vpper Roomes, if the foundation be ruinous: so the Horse that is not sound of his feete, will neither serue the Souldiour, the Husband, nor the Trauailer. In your looking vpon him therefore you must first consider his hookes, that they be not tender and soft, but hard and sound, round, and hollow, that the hollownesse may keepe his foote from the ground, and sounding like a Cimball (as *Xenophon* sayth) may declare the soundnesse of the foote, for the hooke that is full and fleshy, is not to be liked, and the Horses that haue such hookes do easily halt, wherefore diuers commend a Horse like the hooke of an Asse, the pasternes next to the hooke not too long as the Goat hath, for shaking off his rider, and breeding of windgall, nor too short, for being hurt in stony ground. The legges and the thyes, sith they are the standardes of the body, they ought to be euen, straight, and sound, not gouty, with much flesh and

The hooses.

and vaines, for such as haue their legges clad with much flesh and vaines, they with great iournies grow full of windgals, and swellinges, which will cause them to halt, which legges at the first foling, are as long as euer they will be, by reason whereof you may gesse what height the horse will be of, being yet a Coult. The knees must be round, flexible, and small, and not bowing inward, nor stiffe, the thies large and well brawned, his breast great and broad, his necke soft and broad, not hanging like a Goates, but vpright like a Cockes, and well reining, his mane thicke, falling on the right side, some like it better on the left, his head small and leane, for a great and heauy head, is a signe of a dull Jade, his mouthell short, his mouth wide with large wrinkles, still playing with the Bitte, and foming: as *Virgill:*

There stamping stands the steed, and foomy bridell fierce he champs.

The knees. The thies. The breast. The neck. The mane. The head.

The Horse that hath a dry mouth is nought, his cheekbones would be euen and small, for if they stand to farre a sunder, he will be ill to be bridled, and the vneuennes of the cheekes, will make him headstrong, and neuer to rayne well, but to thrust out his head ilfauordly, his eyes great, bluddy, and fiery, and standing out of his head, which is a signe of quicknes, and liuelines: hollow and litle eies are naught, and blacke, or pale starres in the eies are to be dispraised: these faultes are best spied in the night by candell light. *Columella* commendeth blacke eies. A wall eie is very good, such as they say *Alexanders Bucephalus* had. The eares must be short, standing vpright, and stirring, for the eares, bee the tokens of a Horses stomache, which if they bee great and hanging, are signes of a Jade. The Nostrels must be wide, the better to receaue aire, which also declareth a liuely courage: his shoulders large & straight, the sides turning inward: the ridgebone ouer the shoulders being something hie, giues the horseman a better seate, and the shoulders, and the rest of the body is stronger knit together, if it be double: his sides deepe, well knit behind, and something bowed vp, which both is better for the horseman, and a signe of a great strength: his loynes, the broder they bee, the better he lifteth his forefeete, and followeth with the hinder, and his paunch shall the lesse appeare, which both disgraceth him, and burdeneth him: his belly must be gaunt: his buttockes large, and full of flesh, answerable to his

The mouth. The eies. The eares. The nostrell. The shoulder. The chyne. The sides. The loynes. The belly. The buttocks.

brestes,

brestes, and his sides, for if he be broad hanched, and well spred behind, and goeth wide, his pace will be the surer, which we may perceaue in our selues, if wee assaile to take vp a thing from the ground, stryding, and not with our legges together, wee take it vp with more ease and strength. His tayle would be long, bristly, and curled, the length whereof, is not onely a beautie, but also a great commoditie to him to beate away flies: yet some delight to haue them curtayled, specially if they be broade buttockt. In fine, the whole body would be so framed, as it be large, hie, liuely spirited, & well trussed. Some Horsemen would haue their horse to be limmed after the proportion of diuers beasts, as to haue the head and legges of a Stagge, the eares and tayle of a Fore, the neck of a Swan, the brest of a Lion, the buttockes of a Woman, and the feete of an Asse. *Virgill* in his *Georgickes* doth very clarkly describe the tokens of a good Horse.

The tayle.

With head aduanced hie at first, the kingly Colt doth pace,
His tender limmes aloft he lifts, as well beseemes his race.
And formost still he goeth, & through the streame he makes his way,
And ventures first the bridge, no suddain sound doth him affray.
Hie crested is his necke, and eke his head is framed small,
His belly gaunt, his backe is broad, and brested big withall.
The bay is alwaies counted good, so likewise is the gray,
The white, and yellow worst of all, besides, if farr away,
There happen a noise, he stampes, and quiet cannot rest.
But praunceth here and there, as if some spirit were in his brest.
His eares he sets vpright, and from his nose the fiery flame
Doth seeme to come, while as he snuffes, and snorteth at the same.
Thicke is his mane, and on the right side downe doth hanging fall,
And double chinde, vpon his loynes a gutter runnes withall.
He scraping standes and making deepe a hole, he pawes the ground,
Whiles as a loud his horned housse, all hollowed seemes to sound.

You see in how few verses the Poet hath expressed the properties of a good Horse: other conditions there be for which they be liked, when they be pleasant, first liuely, gentle, and tractable: For such as *Columella* saith, will both better be taught, and better

away

away with trauell. *Xenophon* accounteth it a signe of a good horse, if after the wearines of his iourney he seeme to labour lustely: againe, we find by experience, the better the horse is, the deeper he thrusts his head into the water when he drinketh, and that (being a Colt) striueth to out run his fellowes in the pasture, and as *Virgill* saith, leape first into the water, and passeth bridges, not tarrying for any other, nor fearing the yse.

EVPH. What colour in horses count you the best. The Poet seemeth to mislike the white, which others againe, as I haue sundry times heard, commend, specially in England, where they are well accounted of, and most esteemed.

HIP. Touching the colours, there are diuers opinions, and of all colours, lightly you shall find both good and bad: so that the colour is not so greatly to be regarded, if he haue other tokens of a good horse, yet for beauty, and many times for goodnesse, we make choise of colour. The best colours as diuers suppose are these, the rone, the white liarde, the bay, the sorell, the dunne, the dapple gray, the ashy white, the flebitten, the milke white, the blacke, and the iron gray, the bay is most of price as farre as I see at this day, and preferred by the Poet aboue the rest. The Frenchmen call the bay horse *Le bayart loyal*, trusty Bayard: they are the better that haue a starre in the forehead, & the foote spotted a little with white, aforetime the dapple gray, the flebitten, the mouse dun, and the grisell were most esteemed, and such as came nearest to them, as the iron gray, the bright sorell, the browne bay. Onely *Plato* commendeth the milke white, that *Virgill* dispraiseth. Others commende the blacke, specially if he haue either white starre in his forehead, or strake downe his face, or hath any white vpon his foote, the cole blacke without any white, is altogether misliked, the fleabitten horse prooueth alwaies good and notable in trauell: the pelowish and the skued, or pied horses are discommended almost of all men, notwithstanding either of them (if they be well marked) prooue oftentimes well enough, specially the pellowish, if he haue a blacke list downe his back from the neck to the tayle. The Stallion therefore would be of one colour, strong bodied, well limmed, according to the proportion afore. The Mares would likewise haue the said proportion of the Stallion, specially to haue

The Stallion.

The Mares.

large

large bodies, faire and beautifull, of one colour, great bellied, with large and square brest and buttockes.

Age. *EVP.* What age count you best for breede?

HIP. The Stallion may goe with the Mares when his iointes and limmes be well knit and come to their growth, for if they be too yoong, they get but weake and wearish Coltes: some vse to let them goe together at two yeeres olde, but three yeeres olde is the better: the Stallion will serue you from that time till twentie yeere, it hath been seene that they haue gotten coltes till forty, being helped a little in their businesse, for it is not yeeres but skill that abateth lust, as *Aristotle* afore *Plinie* wrote. Yet some thinke them not meete for breed before the fourth or fifth yeere, in which space they feede them lustely, to make them more couragious, for the lustier they be, the better coltes they bring, neither would they haue vnder sixteene Mares, nor aboue twenty, for one Stallion. *Herodotus* writeth, that one horse will well suffice twentie Mares, but the number ought not alwaies to be obserued, but sometimes more, sometimes lesse, according to the state of the horse, that he may the longer endure: a yoong horse should not haue aboue fifteene or sixteene Mares with him: the horses must be sometime seuered for danger and hurting of themselues, hauing in the meane time good regard to the state of his body, for some be weaker and fainter then others.

EVPH. What age doe you thinke best for the Mare to go to the Horse.

HIPPO. The Mares will conceiue, at two yeeres old, but I take it the better not to suffer them till they be three yeere old, and likewise I thinke them not meete for Coltes after ten, for an old Mare will alwaies bring a dull and beanie headed Jade: they goe with Foale a leuen monethes, and foale in the twelfth.

EVPH. How can you know their age when you be doubtfull of it?

HIP. That may you know diuers waies, but specially by the teeth, and those teeth that declare the age, the Grecians call γνώμονες, which teeth when he looseth, he looseth both estimation and sale. *Aristole* affirmeth that a Horse hath 40. teeth, of which he casteth the thirtieth moneth after his foaling fower, two aboue, and two

two beneath: againe in the beginning of his fourth yeere he casteth likewise foure, two aboue, and two beneath, being full foure, and going vpon his fifth, he casteth the rest, both aboue and beneath: such teeth as come vp againe be hollow: when he beginneth to be fiue yeere old, the hollownes of his first teeth is fild vp: in the seuenth yeere all his teeth are filled vp, and no hollownes any longer to be seene: after which time, no iudgement of his age by his teeth is any more to be had: there are some that take vpon them to tell his age by the Iointes of his taile, after the marke is out of his mouth. *Palladius* shewes, that a Horse when he beginnes to be old, his temples ware hollow, his eies bries gray, and his teeth long. *Aristotle* saith, that the age of all fourefooted beastes may bee knowen by the skinne of their Iawes: for if it be pulde vp and presently let fall againe, if it fall smooth, it declares a yong beast, if it lie in wrinkles, it sheweth he is old. A Horse liueth commonly twenty yeeres, some thirty, or fortie, and also to fiftie, as *Aristotle* saith, if he be of a good disposition, and well dieted, it is said there haue been Horses that haue liued 75. yeeres, the Mare liueth not so long as the horse, nor the Stallion, so long as the horse that is suffered to runne amongst Mares: the Mare leaueth growing at fiue yeere old, and the Horse at fiue, or seauen.

EVPH. What time thinke you best for couering of Mares?

HIP. In the Spring, after the twelfth of March, I take to be the best, after the Spring in the rest of the yeere they are to be kept from the Horse, for hurting of the horse: for the Mare after shee hath conceiued, suffers the Horse no more, but beates, and strikes him with hir heeles, yet in most places, they suffer their stallions to run with their Mares all the Sommer long, and take it to be the best way, for answering the Mares desire, for many times the Mare will not abide the Horse till Sommer time, or August, and the August Colt prooues commonly very faire, although the Colts that are foaled in the Spring, are not to be desired, because they runne all the yeere with their dammes in good pasture, and therefore it is best at that time to put the Mare to the Horse, for these creatures specially, if you restraine them, are most enraged with lust, whereas came at the first the name of that deadly poison *Hippomanes*, because it stirreth vp a fleshly affection, according to

the

the burning desire of beastes, which groweth in the forehead of the Colt, of the quantitie of a figge, and blacke, which the damme doth straight, as soone as shee hath foaled, bite off: and if shee be preuented, shee neither loues the Colt, nor suffers him to sucke, neither is it to be doubted, but that the Mares in some Countries so burne with lust, as though they haue not the horse, with their owne feruent desyre, they conceaue and bring foorth after the maner of Byrdes, as the Poet noteth.

In furious lust the Mare exceedes all other beastes that be.

It hath been said, that in Spaine Mares haue conceaued with the winde, and brought vp their Colts, but the Colts haue not liued aboue three yeeres. *Aristotle* writeth, that a Mares desire is quenched by shearing of hir mane.

EVPH. What if the Mare will not take the Horse, is there no meanes to make hir?

HIPPO. There are that rubbe her taile with Sea Onions, Nettels, or Madder, and so prouoke hir to luste, some time a skurup Jade is put to hir, who when he hath gotten hir good will, is straight remooued, and a better Horse, put in place. If the Horse be too slowfull, his courage is stirred vp by wyping hir taile with a Spunge, and rubbing it about his Nose. If we would haue a Horse Colt, we knit the left Stone of the Horse with a corde: and for a Mare the right. The like is to be obserued almost in all other beastes.

EVPHOR. How often must shee be horsed after shee take?

HIP. They take not a like, some are spedde at once, some twise, some more. It is said, a Mare will not suffer aboue fifteene times in the yeere: being oftentimes satisfied with fewer. They must be put to the Horse at times, twise a day, in the morning, and at night: when they are sped, it appeareth by refusing, and striking at the Horse. They say: that there is amongest these beastes a great regard of kindred, and that you can hardly force the Colt to horse the Damme: for proofe whereof they report, that where as a certaine Horsekeeper did make his Horse, by couering his eies, to couer his Damme, the cloth being pulde away, when he saw what he had done, he ranne vpon his keeper, and slew him: as soone as she is couered, the Mare must out of hand bee beaten, and forced

to

to run, leaſt ſhe looſe that ſhe hath receiued. Surely a Mare of all other beaſtes, after hir couering, doth runne either Southward, or Northward, according as ſhe hath conceaued either Horſe colt, or Mare colt: her colour alſo doth change and become brighter, which when they perceaue, they offer hir the Horſe no more. Some after a few daies if they doubt hir, offer the Horſe againe, and if ſhe refuſe and ſtrike (as I ſaid before) they iudge ſhe hath conceaued.

EVPHOR. Muſt they be couered euery yeere?

HIPPO. Such is our couetouſneſſe, as we ſeeke to haue them beare euery yeere: but if you will haue good Coltes, let your Mares go to Horſe but euery other yeere, ſo ſhall they well anſweare your deſire, howbeit the common vſe is euery yeere.

EVPHOR. We ſee Aſſes ſometimes to couer Mares commonly, and thereof is engendred the Moile, and foaled in the xrii. moneth, as ſhall be ſaid hereafter. Some ſay it is beſt to cut the mane of the Mare that ſhall be couered of the Aſſe, though others hold opinion that it ſhall abate hir luſt. The Mares that be with foale, muſt be well looked vnto, and hut in good paſture. And if thorow the cold Winter, paſture being wanting, they muſt be kept in the houſe, and neither labored nor ſtalled vp and downe, nor ſuffered to take any cold, nor to be kept too many in a ſtraight roome, for caſting their foales, for all theſe inconueniences will hazard hir foales, yet to trauell them moderately, will doe them rather good then harme, for too long reſt will cauſe them to be reſtiffe, & to tyer ſooner. *Ariſtotle* writeth, that the *Scythians* did vſe to trauell their Mares great with foale after the time they began to ſtirre, ſuppoſing their foaling ſhould be the eaſier, but good heed muſt be taken, that their bellies be not hurt with any thing while they are with foale: but if ſo be the Mare be in danger, either in caſting hir foale, or in foaling, the remedy is, *Poilipody* ſtamped, mingled with warme water, and giuen with a horne: it is ſaid that the ſmell of a Candel ſnuffe, cauſeth them to caſt their foales: you muſt euery yeere ouerſee your Mares, and ſuch as be vnprofitable, or barraine, muſt be put away, for from their firſt foaling they are not to be kept aboue ten yeeres, at which time they are luſty enough, & may be well ſold, but ſo will they not be after: The yoong foales are not to be handled with the hand, for they are hurt with the lighteſt touch that

may be. It must be seene vnto, that if the Mare be housed, there be roome enough for her and her foale, and that the place be warme enough, that neither the cold harme it, nor the Damme ouer lie it, and therefore the place must be well chosen, that is, neither too hot, nor too cold, and afterwardes by little, you must bring vp the Colt: when it groweth to be something strong, it must bee put to pasture with the Mare, least the Mare receiue hurt, by the absence of it: for chiefely this Beast of all others, most esteemeth her yoong, and if shee be kept from it, taketh harme. The Foale that lackes his damme, is often brought vp, of other Mares, that haue Coltes: the Mare must goe in very good pasture, that the Colt may haue store of milke. Being fiue monethes old, when you bring them into house, you must feed them with barly flowre and bran: at a twelue moneth old, you must either put them into good pasture, or feed them with Branne, Chaffe, and Hay. *Varro* will not haue you to weane them, till they be two yeeres old: and though I like not too soone weaning, yet we vse commonly to weane them at fiue or sixe monethes old, & to let them run in good pasture, which custome prooueth not amisse. Moreouer, as long as they run with the Damme, you shall do well to handle them now and then, least, when they be put from the Damme, they ware wilde: they must be taught to be gentle, and not onely to abide a man, but to couet his companie, and not to be afraid at euery strange sight, nor at euery noise, but to come to it. *Xenophon* saith, we must (as men) prouide schoolemasters for our Children, so likewise teachers for our Horses, and appoint how we will haue them broken: for as their seruice is diuers, so must be their breaking. But hereof we shall speake more hereafter, when we entreat of Horsemanship, and breaking of Horses: onely now we will deal with those that sucke, and serue for the Plow. To make them gentler, the bridles, and other horse harneies must be hanged by them, that they may the better be acquainted with them, both with the sight, and the ringling. Now when they be well tamed, and will suffer to be handled, *Varro* would haue you lay a boy groueling vpon them twise, or thrise, and after to bestride them, and this he would haue done, when they be three yeere old, for then they grow most, and begin to be great brawned. There be that thinke a Horse may begin to be handled

at a yeere and a halfe old, and *Varro*, at three yeere old, when their prouender is giuen them: but we vse commonly after two yeeres to labor them gently, first in harrowing of new plowed land, which is good both for their foote, and their place, and also with plowing, and such like exercise: whereby we vse to acquaint them with cold and heate, in drawing together. It must be seene to, that they be euen matched, least the stronger spoile the weaker, while he dreadeth the rating and whipping. Horses take lesse harme with drawing then with bearing. Thus must they be vsed to reasonable trauell, by reason whereof, they will be the harder, and not so lightly take harme: but herein must be great discretion.

EVPH. What say you to Geldings? for in these partes we vse Geldings most.

HIPPO. They serue for some purpose, but he that will haue a good Gelding, must geld (as they say) a good Horse, they are cut at a yeere old and elder: I my selfe haue cut them at fiue yeere old, and sixe yeere old: in cutting they loose their stomacke, you must looke that they be in good plight when you cut them, for as they are at their cutting, they commonly continue. The Mares also vse to be spaied, but not often, and with great danger.

EVPH. What maner of stable would you haue, for I haue sometimes heard, that the stable is of great importance?

HIPPO. Your stable must be built in a dry place, for wetting the horses hoofe, which you shall auoide, if you planke it with good Oken plankes, or (which *Xenophon* would rather haue you doe) with round pauing stone, keeping it alwaies cleane from doung, and straw, and after laying fresh litter, so as they stand hard, and lie soft. *Xenophon* would haue the stable so placed, as it may alwayes be in the Maisters eie, and to be lightsome, least the horse being vsed to the darke, his eie dasell at the light. Some thinke they will be the gentler, if they be vsed to the light, and the fairer, if they haue the sunne at the rising in sommer time: let as much aire come to them both day and night as you can. In Winter your stable should rather be warme, then hot, and therefore your stable must stand toward the South, but so as the windows may open toward the North, which being kept shut in Winter, may be warme, and opened in Sommer, you may let in the coole aire. Stables.

EVPH. The like we vſe in our Dreſtals.

HIPPO. Beſides, whereas the bodies of cattell, haue neede of rubbing, as well as mens bodies; for many times it doth the horſe as much good to be ſtroked downe the backe with your hand, as to feede him. The horſe is to be continually curried in the morning, at night, and after his labour. In currying of them we muſt begin at the head, and the necke: for it is a vaine thing to make cleane the lower parts, and leaue the other foule. It is good alſo to obſerue due times for his feeding, his watering, and his trauaile. Thus much of his exerciſe. Now followeth to ſpeake of his diet: and becauſe we haue ſpoken before of his paſture, we muſt alſo ſay ſomewhat of his other feeding. The better a man would haue his horſe to prooue, the better muſt he looke to his meate, for the good feeding (the country people ſay) is a great helpe to the goodneſſe of the horſe. If the horſe be young (as I ſaid before of Coltes) he muſt be fed with graſſe, chaffe, and hay: if he be elder and meete to trauaile, his foode muſt be the drier, as Chaffe, Barley Oates, and Hay, Chaffe doth not ſo well nouriſh, by reaſon of the drineſſe, but it keepes the body in good plight: and becauſe hard meate is hardeſt of digeſtion, it is therefore to be giuen to thoſe that labour. The ſtocke or ſtudde, muſt be paſtured in large paſtures and marſhes, as alſo vpon mountaines, and hilly ground, but euer well watred, not dry, rather champion then woody, and rather ſoft ſweet graſſe, then hie and flaggy: if the paſture be too ſhort, they ſooner weare their foreteeth, and are toothleſſe before their full age. And where as euery kinde of Creature is naturally moiſt, a Horſe ought chiefely (whether he be young, or old) to be fed with moiſt paſture, for the better conſeruation of his naturall temperature. Some would haue you in no wiſe to giue your horſe graſſe in the ſpring time, but in June, or the fall of the leafe: they would haue you giue them graſſe with the dew vpon it, and in the night ſeaſon Oates, Barly, and Hay. Howbeit, in the colder countries in Germany, Fraunce, England, where the paſture is very good, they doubt not to ſkowre their horſes with greene graſſe and weedes of the meddowes: and in the hotter countries, they do the like with greene blades of wheat, or barly. Some vſe to giue them apples ſhared in pieces, to ſkoure them withall, and thus much of ſkouring of Horſes. Gene-

Currying.

Dyet.

Skowring.

rally,

rally, whosoeuer will haue his horse healthy, & able to endure trauell, let him feede his horse with Dates, mingled with chaffe or straw, so shall he be temperately & well fed, and if so he labor much, giue him the more Dates. His meate must be giuen him as some thinke best, in a lowe Manger, set so lowe, as they are forced to eate their meate with some difficultie or trauell, which they say is to make them bend their neckes: by which exercise both the head and the necke groweth bigger, and they will be the easier to be bridled: besides, they will be the stronger, by reason of the hard setting of the fore-feete. Howbeit, in some places, they vse hie standing Mangers: after what sort soeuer they be, they must alwaies be kept cleane, and well swept before you cast in their meate. Their Prouender though diuers Horsecoursers, that liue by sale of horse, do feede them with sodden Rie, or beanmeale sod, pampering them vp, that they may be the fairer to the eie: yet is it not good foode to labor with. The best Prouender that is, is Dates, and for default of them Barly: you must beware you giue them neither Wheate, Rie, or any dry pulse: their prouender must be giuen them rather often, and littel, then once or twise a day in great portions, least you glut them therewith: they are vsed to be fed commonly fiue times a day, when they stand in the stable, keeping an equall number of houres betweene the times: when they trauell you may giue them meate seldomer, but in greater quantity, and if their iournies be long, they must haue prouender besides in the night, alwaies remembring (as I said) that you glut them not. The better a horse feedeth, the better will he labour. You must also beware that you giue him no prouender, neither Dates nor Barly, after any great labour, till he be thorow cold: notwithstanding you may giue him a little hay to coole his mouth. The hay must be sweet and well made & thorowly shaken, before it be cast into the racke: and specially seene to, that there be no feathers of any fowle amongest it. If the horse be very hotte after his labour, let him be well couered, and softly walked till he be cold, before you set him vp: when he is set vp, litter him well, least the coldnesse of the ground strike into him: in any wise wash him not whē he is hot, but whē he is thorough cold, water him, & wash him, wiping him dry whē you bring him in. If the horse forsake his meat, some vse to stamp Garlike & Pepper, & to giue it him, Prouender.

rubbing his teeth well, till his stomacke come to him: some would haue a clout wet in salt water tyed vpon a sticke, and thrust into his Iawes. In watering, you must looke well vnto him, for (as *Aristotle* saith) beasts do feede, and are nourished the better, if they be well watred. Horses and Camels, do loue best to drinke a thick troubled water, in so much as if the water be cleare, they will trouble it with their feete: for the most Bullockes againe desire a faire cleare water, and running. The same *Aristotle* also affirmeth, that a horse may suffer thirst foure dayes without drinke. *Varro* wills you to water your horses twise a day, which order we obserue, that is once in the morning, and againe in the afternoone: but in winter, if they drinke but once a day it sufficeth: before you water him, he must be well rubbed, and then ledde into the water vp to the knees, specially if he be leane, if he be fatte, he may go the deeper. Notwithstanding there are some that hold opinion, they ought not to go so deepe, as their stones touch the water, specially if the horse be young. After March, and the spring, it is very good to ride them vp and downe in some Riuer, which will exercise their legges, for the water dryeth the legges, and restraineth the humors from falling downe, and keepeth them from windgalles as soone as they come from the water, you must with a little strawe wipe them cleane, for the dampe of the stable causeth inflamation in the horses legges that be wet. The water (according to *Vegetius* his mind) would be cleare, and springing, other like it a little running and troubled in a clay ground: for this water by reason of the thicknesse and fatnesse, doth better nourish and feede the horse, then the swift running streame: yet those horses that are vsed to the swift and cleare Riuers, are commonly the strongest, and best trauaylers, and therefore it would be well considered how the Horse haue ben accustomed: the colder the waters are, the lesse they nourish, the deeper a Horse drinkes, the fatter he proues: and therefore some Horsecourlers vse to wash their horses mouthes, first with water, and after to rub them with salt, to giue them an appetice to their meate and their drinke.

EVPHOR. I pray you let vs heare some remedies for horses diseases, for (as *Aristotle* sayeth) a horse hath as many diseases as a man.

HIP.

HIP. As touching diſeaſes in a horſe, it is better to preuent them by good heede taking, and (as *Vegetius* ſaith) to be more carefull in keeping a horſe healthy, then when he is ſicke to cure him: which health you ſhall continue with eaſe, if you will obſerue thoſe things, touching his diet, his ſtable, and his labour, that I haue tolde you of before. Whoſoeuer will haue a good horſe, and keepe him in good eſtate, muſt oftentimes ſee him, come to him, handle him, and ſtroke him: for that both makes him gentill, and giues him a faire coate: and be ſtill mindfull of the olde prouerbe, The Maſters eie maketh a fatte horſe, and to be ſhort, to haue him ſo ſtill in his ſight, as he rather want his owne meate, than his horſe ſhould: for hee that neglecteth his horſe, neglecteth himſelfe. To let him haue moderate exerciſe, and to ride him now and then (if the weather be faire) into the feelde, will do him great good: the morning is better to labour him in then the euening, neither muſt you in Winter, or in Sommer ouer labour him, for being in a ſweat, and after taking cold, he falleth into dangerous diſeaſes. And therefore remember what I ſaide, that whereſoeuer you haue laboured him, or ridden him, be ſure you couer him with ſome cloth, and walke him ſoftly, that he may be cold, before he either be ſuffered to eate or drinke: when he is cold, he may be led to the water, and waſhed: ſo as when you bring him into the ſtable, you litter him well, and thoroughly rub him, and ſo giue him meate. If he be ouer trauelled, the onely remedy is reſt, and after his ſweating, to waſh his mouth in Sommer with water and Vinegar, in Winter with wine: for the neglecting of theſe things, hath beene the deſtruction of many a good horſe. Alſo, to powre into his mouth wine and oyle, in Sommer colde, in winter warme (as *Vegetius* teacheth) and as we finde by experience, is very good: for it is commonly ſeene, that a tyred Horſe (if neceſſitie forceth a further iourney) with powring in a quart of good wine, will trauell luſtily. You muſt not ſuffer your horſe to drinke after his iourney, till he be cold: howbeit, if he ſweat not too extremely, and be ridden ſoone after, it is not ſo dangerous: it is farre better to let him thyrſt, then to giue him cold water if he be hotte. If a horſe haue long reſted, he is not to be trauailed vpon the ſudden, either in galloping, or long iourney, but to be laboured faire and ſoftly at the firſt.

A horſe that is weary, or tyred, will be wonderfully refreſhed, ſo as it would ſeeme he had neuer beene trauailed, if he may wallow himſelfe either in the ſtable, or other dry place out of the wind and raine, and therefore *Xenophon* would haue neere vnto euery ſtable a place meete for their wallowing, wherein after their iournies, they may tumble themſelues: for in ſo doing, they ſhewe they are in health, and refreſh themſelues. You muſt looke diligently that they be well looked to at night, and that after their ſweat, they be well rubbed and curried, and that they be not diſquieted when they ſhould reſt. In winter, they would be clothed with woollen for taking of cold, and in Sommer with Canuas, to keepe them from flies. You muſt beware, that you iourney them not long without ſtaling, but after, you haue trauailed an houre, or ſuch a thing, prouoke them to ſtale (by riding them out of the way) into ſome place where Sheepe haue dounged, or into ſome hie graſſe, ferne, or ſtubble, which order was continually obſerued by the beſt vpeter of horſes, that euer I knew in England, one Henry King, who hauing charge of that moſt worthy Gentlemans horſes, Sir Thomas Thalenour, carried a faire companie of Geldings from London, to the Court of Spaine, who notwithſtanding their long iourney through Fraunce, and the painefull paſſage of the *Pire-mies*, by the ſkillfull diligence of their keeper, came thither in as good plight as they came out of England. And if ſo be you ſee he cannot ſtale, or ſtaleth with paine, you muſt bathe him with bath appointed for colde, that is, oile mingled with Wine powred vpon his loines: alſo a louſe put into his yard, or Sope put into his fundament, hath beene ſeene to helpe him. If this doe not helpe, you muſt ſquirt in hony boiled thinne with Salt into his yard. Some would haue the licour of the lime *Bitumen* ſquirted in: *Aeliomus* writeth, that the horſe that cannot ſtale, is preſently remedied, if ſo be a maide ſtrike him vpon the face with her girdell, the feete (which is the chiefeſt matter in a horſe) you ſhall alwayes keepe ſound: if as I told you afore, your ſtable be well paued with round ſtone, or well plancked and kept cleane: which done, you muſt ſtop his hoofes with cowe doung, or for want thereof with horſe doung watred, and his legges muſt be often rubbed with a ſtrawen wiſpe. To cauſe the hooke to grow, or to repaire the broken hooke,

take

take of garlike heades seauen ounces, of hearbe grace three handfuls, of Allome beaten & sifted, seauen ounces, of Barrowes grease very old two poundes, mingle all these with a handfull of Alles doung, boile them, and annoint the hookes therewith. After their iourney, see you search their feete well, suffering no grauel, nor filth to remaine therein, you shall well refresh their hookes with the ointment aforesaid. The iointes, or the pasternes, would be well bathed after their trauell with warme wine, or an egge or two would be thrust in to their hookes, the legges themselues would be washed with warme beere, or some like bath. If the Horse thrust out one of his feete, and stand not euen, it is a signe of some fault in the hooke: the horse halteth, either by reason of the spoiling of his hooke in iourney, or by ill shoeing, or by vnholsome humors falling downe, by low standing in the stable, or by windgals. If the fault be in the shoeing, strike vpon the head of euery naile with the hammer, and when you perceiue him to shrinke, plucke out that naile, or powre vppon the hooke cold water, and that naile that is first dry, pluck it out: if it matter, squeese it out, and powre in Pitch well sodden with olde Swines grease: you must also speedily open his hooke belowe, that the matter (if it be full of corruption) may descende, least it breake out aboue the hooke, and so cause a longer time of healing. The signes of it be, if he hold vp his foote, which if you do pare him to the quicke, and where you perceiue it to looke blacke, open it, and let out the matter: if he be hurt inward, and standeth but on his toe, it sheweth the fault to be in his hooke: but if he treade equally with his foote, it declares the griefe to be some other where, then in his hooke: if in his haulting he bowe not his iointes, it is a signe the sore is in the iointes. For all halting generally, mingle Hemp with the white of an egge, and stop the foote withall, and after clap on the shoe: if it be a wound, put herein the pouder of Dishershelles, and Verdegrease to dry it vp, or the white of an egge, with Soote and Vineger. The Cratches (as they commonly call them) is a malady that happeneth betwixt the Pasternes and the Hooke, in the manner of a scabbe, and is ingendred of the damps of the stable, while he standeth wette legged: the remedy whereof, is all one with the paines, which is likewise a sorraunce breeding about ỳ iointes, breaking the skinne, & mattring:

taking away the heare, wash the sore with warme Beere, or with the broth wherein is sodden mallowes, brimstone, and sheepes suet, which must be bound about the sore place morning and euening, or else sheepes suet, Goates suet, Swines grease, Uerdegrease, and quicke Brimstone, Bolearmenicke, and Sope, boiled and made in ointment, wherewith you shall anoint the sore twise a day, washing it first with warme Wine, and after it is dryed annoint it, in the meane time keepe him out of the water: the lees of wine is also sometime vsed in the curing of the cratches, windgals, which are swellings, and risings in the legges, are cured with cutting, and burning: some thinke they may be restrayned and cured, by riding the Horse oftentimes vppe and downe in some colde and swift streame, also by washing his legges with Salt, Uinegar, Swines grease, and oyle, wrapping them vp certaine dayes, or by launcing, or scarifiing they are cured: the outward sores are healed by burning. If the backe be wrong with the saddell, or otherwise hurt that it swell, *Vegetius* would haue you to seeth Onions in water, and when they be so hot as the Horse may suffer, to lay them vppon the sore, and binde them fast, which will asswage the swelling in one night. Item, Salt beaten and medled with Uineger, putting to it the yolke of an egge, layed vppon the swelling, will heale it: besides, Arsmart stamped and laid too, doth presently asswage the swelling. If the backe be galled, washe it with Beere and Butter, or cast vppon it the powder of a Lome wall. There is a disease that is common in Horses, called the Uines, which if he haue, turne downe his eare, and launce the sore at the roote of the eare, and take out the matter: but take good heed you cut not the vaine that lieth a little aboue. If a horse haue beene set vp hot after his iourney, and in his heate hath beene watred, or taken cold, which the Germanes call *Verfangen*, in English foundred, or in some places fraide: the remedy is the skinne of a Weesell cut in small peeces, fresh butter, a rotten egge and vinegar mingled together, and powred into the Horse with a horne: after which, let him stand couered with a wet cloth, till he ware hot. A present, and assured cure for this disease, I learned not long agone, of that honest, wise, and valiant Gentleman, Captaine Nicolas Malbee, in whome there wanteth nothing belonging to a worthy souldier.

His

his medicine was this: Garter each legge immediatly one handfull aboue the knee with a liſt, good and hard, and then walke him to chafe him, and put him in a heat; and being ſomewhat warmed, let him blood in both the breſt vaines, & in the vaines of the hinder legges, betweene the hoofe and the paſtorne, reſeruing the blood to make a charge withall in this maner. Take of that blood two quartes, and of Wheat meale, as it commeth from the Mill, halfe a pecke, and fiue egges, ſhelles and all, of Bolearmoniacke halfe a pound, of *Sanguis Draconis* halfe a quarterne, and a quart of ſtrong Vineger: mingle them all together, and charge all his ſhoulders, breſt, backe, loynes, and forelegs therewith, and walke him vpon ſome hard ground: three houres after, lead him into the ſtable, and let him ſtand tyed two houres to the racke, without meat or drinke, and walke him then two or three houres more, and then giue him a little warme water, with ground Malt in it, and after, a little hay, and prouender, then walke him againe vpon the hardeſt ground you can get: you ſhall ride him the next day a mile, or two ſoftly, and ſo from day to day, vntill he be well, which will be within three or foure daies. Remember to let him ſtand the firſt day after his firſt walking, two houres in water vp to the belly: this medicine is infalliable. The colicke, or paine in the belly, is thought will be eaſed in a Horſe, or Mule, onely with the ſight of a Ducke, or any water foule. To keepe your Horſe from flies, it is good to waſh him ouer with the iuice of the leaues of the Gourde, in the middes of Sommer. Many times Horſes are troubled with woormes, or bots, which you ſhall perceiue, if they caſt their looke vpon their belly, if they wallow oftentimes, and ſtrike their belly with their foote: the remedy, is Harts horne, Sauine beaten, and giuen him with a little Venegar in a horne. *Columella* would haue you rake the Horſe with your hand, and after that you haue plucked out the doung, to waſh his fundament with Sea water, or Brine. *Braſauolus* in his Commentary vpon *Hippocrates*, declareth how he cured the Duke of *Ferars* horſe, beeing in great danger with woormes, by giuing them Quick ſiluer, and *Scordium*, or water *Germander*, when no other medicines would helpe. The Rewme, or diſtillation, maketh a Horſe ſlothfull, dull, and faint, yet will he be led, and ridden, and moderate labour is not amiſſe for him, let

him

him drink warme water with Wheat bran: the more filth he voides at the mouth, the better will it be for him. There are sundry diseases thought vncurable, which if the Horse had, and was sold, by the old Lawes he was to be turned backe againe, except the bargaine were otherwise: of which number are, the broken winded, the lunatike, and the mangines, called the Farcine, which disease if it come once to the stones, is thought vncurable. To this they adde the through Splent: some thinke the broken winded is not to be cured, because it is like to the consumption of the longs in a man, yet some hope of recouery there is, if it be taken in time: for letting of blood in dry diseases, is against reason. But you may annoint the hole body with wine and oyle, mingled together and warmed, & curry him against the heare till he sweat, and giue him this drinke inward from the first day: the iuice of Pisan, Swines grease clarified, and *Amylum*, in new sweete wine, which being boiled together, you may giue it him with a horne to open his pipes, & set him so as he stand warme. The lunatike eyes are cured by letting him blood in the temple vaines, bathing the eyes on the outside with some warme bath, and putting into them some strong water certaine daies, till they be whole: For the manginesse, take the woormes called *Canthárides*, beating them, and mingle with them a little Verdegrease, & so annoint him with it, warming the body of the Horse with a firepan. Others vse to wash him with warme water twise a day, and after to rubbe him with Salt sodden in water, till the matter come out. Aboue all other, they say it excelleth in the beginning to annoint him with the fat of a Seale: if it haue run long, you must vse stronger medicines, as Lime, Brimstone, Tarre, old Swines grease, of each a like quantitie, boyled together, and with a little Oile made in an ointment, they vse to rub it also with the Soote of a Caldron. Against many diseases both of Horses, and Bullockes, they vse the roote of the herbe called blacke Ellebore, of some Bearfoote, or others Setterwort, which they thrust in the brest of the beast, betwixt the flesh and the skin, making a hole before with a bodkin. Against all diseases of Horses, *Vegetius* commendeth this medicine as the chiefest, Centory, Woormewoode, Dogge Fenell, wilde Time, Sagapen, Betony, Saxifrage, *Aristolochia rotunda*, take of each a like, beate them small, and sift them,

and

and if the Horſe haue an ache, giue it him with water, if he be ferme, with good ſtrong Wine. The old husbands would not ſuffer their Horſes to be let blood, but vpon great neceſſitie, leaſt being vſed to it, if it ſhould at any time be omitted, it ſhould breed ſome diſeaſe: and therefore in very yoong Horſes, and ſuch as be healthy, it is beſt not to let them blood, but in the roofe of the mouth: For thoſe that be come to their full age, you may let them blood before you put them to paſture, but beware you beare a ſteddy hand, and ſtrike them not too deepe. Geldings you ſhall not neede to let blood. The Horſes of *Barbary* (as they ſay) neuer neede any medicine.

EVPHOR. You haue ſpoken enough of Horſes, it is time you ſay ſomething of Aſſes.

HIP. It is greatly out of order, but ſince you will needes haue mee ſo to doe, I will not sticke with you to ſay what I can therein, that each of you may doe the like in his charge. Aſſes are commonly kept, yet not to be little ſet by, becauſe of their ſundry commodities, and the hardneſſe of their feeding, for this poore beaſt contents himſelfe with what meate ſo euer you giue him, Thiſtles, Briers, Stalkes, Chaffe, (whereof euery countrie hath ſtore,) is good meat with him: beſides he may beſt abide the ill looking too of a negligent keeper, and able to ſuſtaine blowes, labor, hunger, and thirſt, being ſeldome, or neuer ſicke, & therefore of all other cattell longeſt endureth: for being a beaſt nothing chargeable, he ſerueth for a number of neceſſary vſes: in carrying of burdens, he is comparable to the Horſe, he draweth the Cart (ſo the lode be not vnreaſonable:) for grinding in the Mill he paſſeth all others, therefore in the countrie the Aſſe is moſt needfull for carrying of things to the Market, and Corne to the Mill. In *Egypt* and *Barbary* (where the ground is very light) they haue alſo their vſe in plowing: and the fine Ladies of the countrie doo ride vpon Aſſes richly furniſhed: yea, they be very apt to be taught, ſo as at this day in *Alcayre* you ſhall haue them daunce very manerly, and keepe meaſure with their Muſitian. *Varro* maketh mencion of two ſortes, one wilde, whereof in *Phrygia* and *Lycaonia* there are great ſtore: the wilde Aſſes that are tamed, are paſſing good, ſpecially for breede, and they are eaſely broken: the other is tame, of which I meane to ſpeake. The beſt are brought out of *Arcadia*, (although *Varro* ſeemes to commend Aſſes.

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the breed of *Italy* for goodnesse.) He that will haue a breed of Asses, must haue the Male and Female both of reasonable age, large bodied, sound, & of a good kind: the Male must be at the least three yere old, for from three, till they be tenne, they be fit for breeding: they bring foorth their Coltes sometimes at two yeeres and a halfe, but three yeeres is the best age: the Female goeth as long with his burden as the Mare, and dischargeth in all respectes as she doeth: but she will not very well retaine, except she be forced immediatly after the bearing to runne about: she seldome bringeth foorth two. When she foaleth, she gets hir into some darke place, and keepes hir selfe from being seene. They will beare all their life time, which (as *Aristotle* saith) is thirtie yeeres: they are put to the horse a little, before the tenth of June, & beare euery other yeere: they bring foorth their Foale at the twelmoneth. While they be with Foale: they must not be greatly laboured, for hazarding their Foale: the Male must neuer be idle, for he is as lecherous as the diuell, and by rest will waxe naught. The colt is suffered to run with the damme the first yeere, and the nert is gently tied vp with hir, onely in the night times: the third yeere they are broken, according to their vse. The damme doth wonderfully loue her yoong so much, as she will not sticke to come through the fire to it: but the water she dare in no wise come neare, no not touch it with hir foote, neither will she drinke in any strange water, but where she is vsed to be watred, and so as she may goe and stand dry foote. They delight to be lodged in wide roomes, and are troubled with fearefull dreames in their sleepes, wherat they so pawe with their legges, that if they lie neere any hard thing, they hurt their feete: in drinking, they scarsely touch the water with their lippes, (as it is thought) for feare of wetting their goodly eares, whose shadowes they see in their drinking: no beast can worse away with cold then this. If your Asses halt at any time, you shall thus remedie them, wash all the foote with warme water, & afterward make them cleane with a sharpe knife, which when you haue done, take old chamber lie, as hot as may be, and melt therein Goates suet: or if you haue not that, Ore tallow, and anoint all the feete till they be hole.

EVPH. They say, that betwixt an Asse, and a Mare, is gotten

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the Moile, as a third kind, of two sundry kindes, neither resembling the father, nor the mother.

HIP. It is very true: as of the she Asse, and the Horse, is engendred the she Moile, but altogether, stubborne, and vnreasonable dull. Also of the Mare, and the wilde Asse, being broken are bred Moiles that run passing swiftly, and are wonderfull hard hoofed, but rugged of their body, and mischieuous stomached, yet easie to be handled: the Mares for breed, must not be vnder foure yeeres: nor aboue ten: they are foaled in the twelfth moneth, as Horses and Asses are, as *Aristotle* saith:) but *Columella* saith, their foaling time is not before the 13. moneth. The Female conceaueth (as experience teacheth) assuredly after the seauenth day: the Male doth neuer better horse, then when he is most tyred. She that conceaueth not before she hath cast hir colts teeth, is taken to be barren, as she likewise that takes not at the first horsing. Those that are gotten betwirt a Horse and an Asse in old time, were called Neyardes, and such are were brought foorth betwirt an Asse and a Mare, they called Moiles. The Moiles themselues (they say) doe neuer ingender: and if at any time they did, it was taken for monstrous, accounting the cause of their barrennesse, the contrarietie of their kindes: which matter a long time troubled both *Aristotle*, and the rest of the Philosophers. Though *Aristotle* hath other where written, that Moiles doe both ingender, and bring foorth: and with him agreeth *Theophrastus*, affirming that in *Capadocia* they do commonly bring foorth, and ingender of themselues. The like doth *Varro*, and before him *Dionysius*, and *Mago* affirme, that the breeding of Moiles in the countries of *Affryke*, is neither monstrous, nor geazon, but as common as our breed of Horses: but the Moile is both fairer, and better stomacked, that is begotten of an Asse, and a Mare. The Stallion that you meane to haue for your race of Moiles, must be as faire as you can get, hauing onely this regard, that he be large of body, bigge necked, broad, and strong ribbed, large, and brawne brested, his thighes full of synowes, and the legges well knit, of colour blacke, & spotted: for Asses (though they be commonly dunne) yet that colour agreeth not well with a Moile: some say, that what colour you would haue your Moile to be, with that coloured cloake you must couer your Asse. The Asse Moiles.

so

ſo proportioned (as I haue declared) that you meane to appoint for your Stallion, you muſt ſtraight waies take from his damme, and put him to ſome Mare that hath a Colt ſucking of hir: you ſhall eaſely deceiue the Mare, by ſetting hir in a darke place, remouing hir owne colt from hir, and putting to hir in ſteede thereof the Aſſes colt, which ſhe will nurſe as hir owne. Afterwards, when the Mare hath been vſed to it a ten dayes, ſhe will continually after that time giue it ſucke. The Aſſe being in this order brought vp, will better acquaint him ſelfe with the Mare: ſometimes though he be ſucked onely with his owne damme, being brought vp when hee is yoong amongſt Mares, will well enough keepe company with them (as *Columella* ſaith:) but our Aſſes are of them ſelues deſirous enough of the Mares, that they neede not to be trained to the matter: for it is a wonderfull coltiſh beaſt, and vnreaſonably weaponed. He muſt not be leſſe then three yeeres old when he couereth your Mares, which muſt be in the Spring time, when you may well feede him with graſſe, and good ſtore of oates, and barly: neither muſt you put him to a yoong Mare, for if ſhe haue not been horſed before, ſhe will ſo beat hir wooer, that ſhe will make him like the worſe as long as he liueth: for remedy whereof, you muſt at the firſt put to the Mare a wilder Aſſe, that may woo hir before, but not ſuffered to horſe hir, and when you perceiue that ſhe is horſing, away with the raſkall, and put to your Stallion. A place fit for this purpoſe, the countrie people (as *Columella* ſaith) were wont to haue, which they called a frame, or a brake, with two railes on both ſides, and a little diſtance betweene, that the Mare cannot ſtriue, nor turne from the Horſe, the lower part encloſed, and the Mare ſtanding low, ſo the Aſſe may the better leape hir, hauing the vpper ground for his helpe, which when ſhe hath conceaued, and at the twelue moneths end brought forth, the yeere after ſhe muſt be ſuffered to run emptie, that ſhe may the better bring vp hir colt. The ſhe Foile (being a twelue moneth old) muſt be taken from the Damme, and let run vpon mountaines, or wilde places, for the hardning of his hoofes, and the better enduring of labor, for the male is the better for burden, and the female the quicker and liuelier: both the kindes doth trauell well, and till the ground, if the plowman be not vnreaſonable, or the ground ſo ſtiffe, as it requireth a draught of oxen, or horſe.

They

They will leaue ſtriking and kicking, if you vſe to giue them wine, (as *Plinie* reporteth,) who likewiſe writeth, that a Moile will liue foure ſcore yeeres.

EVPH. Since you haue begun with trauelling beaſtes, what can you ſay of the Camell.

HIP. The Camell is chiefly vſed in the Eaſt parts, which ſome ſuppoſe to be the ſeruiceableſt cattell for man that is, and as it were thereunto onely framed: for he is bumbaſt vpon the backe for bearing of burdens. Alſo he hath fower knees, whereas the Horſe, the Aſſe, and ſuch others haue but two: for his hinder legges bow forward as a mans knees doth, wherewith he kneeleth to receiue his burden. There are two kindes of them, the *Bactrian*, and the *Arabian*: the *Bactrian* haue two bunches vpon their backs, and the *Arabian* but one, and the other on their breſt to leane vpon, both ſortes of them lacke their teeth aboue, as the bullocke doth: they all ſerue in thoſe Countries for burden, and to carry men in the warres: they are as ſwift as horſes, but ſeeme a great deale more then others: neither will they breake their pace, nor carry more burdens then they are vſed to: they beare a naturall hatred to the horſe: and can forbeare drinke for foure daies: he drinkes when he may, both for that is paſt, and to come, troubling the water before with his foot, otherwiſe he delighteth not in it: he is fed beſide his paſture, & ſuch things as he gettes in the wood, with oates, or barly, and ſalt: he engendreth backward as the Elephants, Tygars, Lions, Connies, and ſuch other, whoſe inſtruments growes backward: when they meane to go to rut, they ſeeke the ſecreteſt and deſerteſt places that may be: neither may a man at any time come neare them, without great danger. They go with yoong a twelue-moneth, & are meete for breede at three yeeres old, and after a yeere they conceaue againe, they beare but one at once, as Elephants, and other great beaſtes doe: they giue milke till they be great. Againe (as *Ariſtotle* ſaith) *Didymus* in his bookes of huſbandry writeth, that the Camell hath a regard to his blood, as the horſe hath, and lieth neither with mother, nor ſiſter. And the female Camell of *Bractria*, feeding vpon the Mountaines amongeſt the wild Boares, is oftentimes dreamed of the Boare, & conceaueth. Of the Boare & the ſhe Camel, is engendred the Camell with two lumpes vpon the backe,

backe, as the Moile is of the Asse, and the Mare, and in diuers thinges resembleth his sire, as in bristled heares, strength, and not fainting in the myre, but going lustely through, and in carrying double so much as other Camels, as the same authour saith. The Females of them are spaide, to serue the better for the warres: they liue (as *Aristotle* saith) fifty yeeres, others say a hundred yeeres, and are subiect to madnesse, (as *Plinie* saith,) there are a kind of them called *Camelleopards*, that haue the resemblance of two diuers beastes, the hoofes and hinder legges like an Ore, his forelegs and his head like the Camell, the necke like a Horse, being flecked white and red, *Strabo* saith, he is couered like a fallow Deare, straight necked, and hie, like an Ostrige, his head some thing higher then a Camels.

EVPHOR. I remember I haue seene the like beast for all the world in a peece of Tapestry with blacke Moores, with their wiues, and baggage vpon their backes, saue that they had their little hornes vpon their heades, like as some Sheepe haue. I thinke *Heliodorus* in his *AEthiopian* storie, did first describe this beast, but these outlandish beastes we meddle not much with.

HIP. Go to *EVPHORBVS*, let vs now see you discharge your part, according to your promise, and tell vs some part of your cunning in keeping your Cattell: for next to the Horse in worthynesse, commeth the Ore.

Bullocks.

EVPHOR. Since it is so appointed, I am contented to shew you what I can say touching my poore skill: and first, I may not suffer the Horse to challenge the chiefe place, when the olde writers and auncient people did alwaies giue the garland & chiefe praise to the Ore, as to a good plowman, and a faithfull seruant: for *Hesiodus*, a most auncient writer, and the graueſt aucthour of our profession affirmeth, that the family doth consist of the husband, the wife, and the Ore. The selfe same by his aucthoritie doth *Aristotle* seeme to alleage in his Politickes, and in his Economickes, which beast was alwaies of that honor and estimation, that he was condemned in a great penalty, whosoeuer did kill him, being a fellow, and a chiefe helper in our husbandry. By the worthinesse of this beast, many great things receiued their names of them: for of the number, beauty, and fertility of Heyfars, did

Italy

Italy (as they say) first take his name, because *Hercules* pursued the noble Bull called *Italus*. This is the chiefe companion of man in his labours, and the trusty seruant of the goddesse *Ceres*: in many great things for the roialty of the Ore, they deriued their names from the Ore as in calling also the Grape *Bumammam*: in fine, *Iupiter* himselfe thought good to conuert into this shape his sweete darling *Europa*. Moreouer, of a rotten Steere are ingendred the sweete Bees, the mothers of Hony, wherefore they were called of the Greekes (as *Varro* saith) *Bulues*. The same *Varro* makes foure degrees in their age: the first of Calues, the second of Yeereings, the third Steeres, the fourth Oxen, the Seres: in the first, the Bulcalfe, and the Cowecalfe: the second, the Heyfar, and the Steere: in the third and fourth, the Bull, and the Cowe: the barraine Cowe he calleth *Taurum*, the melch Cowe *Hordum*, from whence came the feasts called *Hordicafesta*, because the melchkine were then sacrificed. The goodnesse of this beast is diuers, according to the diuersitie of the country: the best were counted in the old time to be of the breede of *Albania*, *Campania*, and *Toscam*: at this day wee take the best kinde to be in Hungary, Burgundy, Frisland, Denmarke, and in England. Of Bullocks some are for the draught, some for the staul, and some for the paile: to what purpose soeuer they serue, whether it be for labour, for milking, or for feeding, it is best alwaies to choose such as are young, of lusty age, rather then those that are old and barraine, the wordes of couenant in the old time (as *Varro* saith) in selling of Bullockes, were these: do you warrant these Bullockes, or Steeres, that you sell to be sound, of a sound heard, and without fault? The butchers that bie for slaughter, and such as bie for sacrifises, vse no word of warrantise: and though some bullocks are chosen by their strength, some by the greatnesse of their body, yet the best commonly haue these properties: large, well knit, and sound limmes, a long, a large, and deepe sided body, blacke horned, though in the colour there be no great matter, yet some mislike the white for their tendernesse, which when *Varro* consenteth, who would haue them broade foreheaded, great eyed and black, his eares rough and heary, his chawes to be large and wide, his lippes blackish, his necke well brauned, and thicke, his dewlappes large, hanging downe from his neck to

his knees, his shoulders broade, his hide not hard, or stubborne in feeling, his belly deape, his legges well sette, full of synowes, and straight, rather short then long, the better to sustaine the waight of his body, his knees streight and great, his feete one farre from the other, not broad, nor turning in, but easely spreading, the heare of all his body thicke and short, his tayle long, and bigge heared. *Palladius* thinketh the best time for bying of drawght Oxen, to be in March, when being bare, they cannot easely hide their faults, by the fraude of the Seller nor by reason of their weakenesse be too stubborne to be handled. It is best to bye them of your neighbour, least the change of ayre and soile hurt them: for the Bullock that is brought vp neere home, is better then the stranger, because he is neither troubled with change of aire, water, nor pasture: if you can not haue them neere you, bye them from some like country, or rather from a harder, and be well assured that you bye them euer matched, least in their labor the stronger spoile the weaker. Looke besides that they be gentle & skilfull in their labour, fearefull of the goade, and the driuer, not dreading any water, or bridge: great feeders, but softly, and not ouerhastily: for such doe best digest their meate. In choosing of Bulles, or Kine, the very like signes are to be required, that the Bull differeth from the Oxe, in that he hath a more frowning and fierce looke, shorter hornes, greater, and thicker neck so bigge, as it seemes the greatest part of his body, his belly something gaunter, and meeter for Bulling of Kine. The Bull before he be suffered to goe with the Kine, must be well fed with grasse, chaffe, or hay, and kept seuerally by himselfe, neyther must he goe to the Cowe, till the tenth of June. *Varro* would not suffer him before the rising of the *Lira*: but *Aristotle* would haue him all the reddring time, to goe in pasture with the kine. The Cowe likewise would be hie of stature, and long bodied, hauing great vdders, broade forehead, faire hornes, and smooth, and all other tokens almost that is required in the Bull, specially to be young: for when they passe twelue yeeres old, they are not good for breede, but they liue many times farre longer if their pasture be good, and they kept from diseases. The old Cowe giueth more milke then the young, according to the country peoples prouerbe, old Kine, more milke, young Hennes more egges. Againe, vnder

three

three yeeres old, you may not suffer them to go to Bull: if they chaunce to be with Calfe before, you must put the Calfe from them, and milke them for three daies after, least their vdders be sore, afterwards forbeare milking. *Plinie* writeth, that at a yeere old they be fruitefull, but the breede will be little, as it happeneth in all too timely ingendrings. You must euery yeere in these beasts (as in all other) sort your stocke, that the old that be barrain, or vnmeete for breeding, may be put away, sold, or remooued to the Plow: for when they be barraine (as *Columella* saith) they will labour as well as Oxen, by reason they are dryed vp, but we vse commonly to fatte them: their age is knowen by the knottes and circles of their hornes, which *Plinie* marketh likewise in Goates. The time for going to Bull, some take to be best in the midst of the spring: *Palladius* would haue it in July, for so in the twelfth moneth she shall calue, for so long she goeth with Calfe (as the common people say) a Cowe and a Quene hath both one time. In many places they desire to haue their Cowes goe to Bull a thirty or forty daies after the tenth of June, that they may calue in March, or Aprill: that they should haue much milke, so order the matter, as their Kine goe to Bull from the spring, to winter, whereby they alwaies milke some: at once bulling she conceaueth, if she chaunce to faile, she goeth to Bull againe within twenty daies after: some say, if so be the Bull come downe on the left side of the Cowe, it will be a Cow Calfe, if on the right side, a Bull Calfe. The Greekes affirme, that if you will haue a Bull Calfe, you must knit the right stone of the Bull, and for a Cow Calfe, the left: *Varro* saith, that if you put the Cow to the Bull immediatly after gelding she conceiueth: *Columella* affirmeth fifteene Kine to be enough for one Bull. I thinke he will well enough serue twenty Kine, if he be such a Bull as I described: if you haue good store of pasture, you may let them goe to Bull euery yeere, but you must beware your Kine be not too fatte, that will hinder their being with Calfe. The Cowe should when she is reddring, haue but short pasture, and the Bull his belly full: so shall neither she be too fatte, nor he vnlusty. If the Cowe will not take the Bull, you must stampe sea Onyons in water, and rubbe her vnder the taile with it: if the Bull be not lusty enough about his businesse, take the peezel of a Stagge, burne it,

and make it in pouder, and with a little wine and the pouder, bath his stones, and his peezell withall, which will serue for the like purpose in all other beastes (as *Quintilian* saith) his courage is also stirred vp by the like odours that you speake of for your horse. A Bull ought not to leape the Cowe aboue twise in a day as some thinke, but we finde by experience, that he may oftner. In some places they haue common Bulles, and common Boares to euery towne: a Bull will ware furious at the sight of any redde thing, as the Elephant, and the Lyon, which cannot in no wise abide the sight of any white thing. A Cowe will giue sucke to a strange Calfe, but let not the Calues lye with them in the night, for feare of ouerlaying them. Some weane them at the first, and suckleth them with Wylke, or Whay, hauing a little Branne in it, or Flowre, wherewith they bring them vppe, till they be able to feede. Whether you meane to reare them for breede, labour, or feeding, you must let them want no store of good pasture: for though they be of neuer so great a breede, yet if their pasture be scantie, they will neuer come to their full growth: for pasture makes the beast (as the Countrey people say.) *Mago*, and the old husbandes, would haue you to gelde them while they be verye young, which ofter we likewise obserue in cutting of them: and in the spring, or at the fall of the leafe, when they be three moneths old, or there about, wee vse to gelde the Bull Calues, and spay the Cowe Calues, sowing vppe the wounde, and annointing it with fresh butter. *Columella* would not haue them cut, but their stones broken by little and little with an instrument, which kinde of gelding he best liketh, because in the little young ones, it is done without bleeding: for when they be something growen vp, it is better to cut them at two yeere olde, then at a yeere olde, which must be done in the Spring, or at the fall of the leafe, the Moone being in the wane: you must tye vp the Calfe to a frame, and before you cut him, you must fasten about the synowes, whereby the stones hang, a couple of small sticks like a paire of tonges, and taking hold therewith, cut away the stones, so as a little of the vpper partes of them may remaine with the foresaid synows: for by this meanes you shall not hazard the beast by ouermuch bleeding, neither is his stomacke quite taken away, but hath something

of

of the father remaining, and yet looseth his abilitie of ingendring. Notwithstanding, if you suffer him immediately vppon his new cutting to go to the Cowe, it is certaine he may get a Calfe, but let him not so doe, for feare of bleeding to death. The wounde must be annointed with the Ashes of Vines, and Lytharge, and he must not be suffered the first day to drinke, but nourished with a little meate: three daies after he must be dieted, according to his feeblenesse, with greene bowes, and sweete grasse cut for him, and looked to, that he drinke not too much: and if you will, you may annoint the sore for three daies with Tarre, and a little Ashes, and Oyle to heale him the sooner, and to keepe the place from flyes. You must vse them while they be yet young, to suffer to be handled, and stroked, and tied vp to the Manger, that when they should come to be broken, they may be handled with more ease, and lesse danger: but *Columella* forbiddes you to meddle with the breaking, or labouring of them, before three yeere old, and after fiue: for the one is too soone, the other too late. Those that you haue taken vp wilde, and be well framed, and proportioned, according to my paterne, you shall handle and breake in this sort. First of all, see that you haue a large roome, where the breaker may easely goe vp and downe, and out at his pleasure, without any danger. Before the Stable, you must haue a faire feelde, that the Steeres may haue libertie enough, and not be feard, or haltred with trees, or bushes. In the Stable, you must haue certaine stalles, or boordes, pokewise, set vp, a seuen foote from the ground, to which the Steeres may be tied: this done, choose you a faire day for the purpose, and taking them vp, bring them into the stable: and if they be vnreasonable wild and curst, let them stand tyed a day and a night without any meate, to tame them withall: afterwards let him that keepes them, offer them a little meate, not sidewaies, or behinde, but before coing them all the while, and speaking gently to them, stroking their backes, and their mooseles, sprinckling them with a little sweete wine, taking good heede, that they strike him neither with head, nor with heele: for if he once get that tricke, he will neuer leaue it. Thus being a little acquainted with him, you shall rubbe his mouth with Salt, and let downe into his throte certaine lumps of salt tallow, and powring

after a quart of good wine, which will make him in three daies as good a fellowe as you would wish him to be. Some vse to yoke them together, and let them draw some light thing, or plowe in a light plowed ground, than their labor hurt not their neckes. The readier way of breaking them, is to yoke them with an old Oxe, that may easely instruct them: if he happen to lye downe in the furrow doe neither beate him, nor feare him, but binde his feete together, and let him lye, that he may neither sture, nor feede: which being well punished with hunger, and thirst, will teach him to leaue that sullen tricke. The feeding of this kinde of cattell is diuers, according to the diuersitie of Countries: if there be store of good pasture in the Countrey, there is no foode to that: in Countries where wanteth pasture, and specially in Winter, he must be kept in the Stall, and fed with such fodder as the countrey yeeldes. Where there are Tares to be had, it is the best feeding for them: and Hay is very good, Chaffe, and Coolestalkes with Chaffe and Hay, and chopt strawe sodde together in water, is very good feeding for Winter. In some places, they feede altogether with newe threshed strawe: in many places they giue them Lupines steeped in water, or Chiches, or Pesan, mingled with Chaffe: besides the branches and leaues of Vines, the greene branches of Elme, Ashe, Poplar, and Holme: in winter, when other greene bowes faile, the Figge Tree will serue, or the brousing of Okes, and Holly. Oxen are soone fat in good pasture, and with Wheate, Rapes, Apples, and Radishe: Oxen, or Kine, will be passing fat, where there wanteth pasture, by giuing them meale mixt with Wheate, Chaffe, and Rapes, or Graines. They will ware the sooner fatte, in washing them with warme water, or (as *Plinie* saith) by cutting their skinnes, and blowing in winde to their bellies with a reede. *Sotion* teacheth that they will be fatte, if when they are taken from pasture, you giue them the first day Colworts chopt and steeped in sharpe Vinegar, and afterwardes Chaffe, being well cleaned, and mingled with Wheat branne, for the space of fiue or sixe daies, feeding them after with good store of fodder: in Winter you must feede them at the first Cockcrowing, and againe when the day begins to breake: in Sommer first at the breaking of the day, then at noone, and at night: in Sommer you must

water

water them twise a day, three houres afore noone, and three houres after: in winter, once a day with warme water, which is also though to be good for fruitfulnesse: and therefore the Lakes that are filled with Raine water, are good for them. This kind of cattell desireth no cleane, or faire water, but foule and puddy: yet it were better to giue them faire water. Also, you must prouide them of warme pastures for the winter, and in sommer, very coole: chiefly Mountaines where they may browse vpon the bushes, and picke vp a good liuing among the Woods: but in lowe grounds and neere the Riuer, Oxen are sooner fatted, and Kine giue a greater quantity of Milke. In Sommer, they lye abroade all the nightes in many places: yea, in England you shall haue them fodred abroad all the Winter. Though they be able to abide cold, yet must you prouide them of large stalles, for the succouring of such as be great with Calfe. Your Stables or Oxestals, must stand dry, and be well floored, either with stone, grauell, or sand: the stone will suffer no water to abide vpon it, the other will soone drinke it vp and dry it: both sortes must be layed slope, that the water may runne away for rotting the groundsels, and marring their houses. Let them open toward the South, so shall they be the drier, and the warmer: notwithstanding, let your windowes open North and East, which being shutte in Winter, and open in Sommer: may giue a healthfull aire. In fine, as neere as can be let the houses be neither too hotte, nor too cold, and as dry as may be: *Columella* would haue two Oxehouses, one for the winter, the other for the summer both vncouered, but well and high walled, for keeping out of wilde beastes. The stals would be eight foode wide, that they may haue roome enough to lye in, that the Kine great with Calfe hurt not one the other, nor the stronger Oxe wrong the weaker: and that there may be roome for their keepers to come about them, and for yoking them. *Vitruuius* would haue the Oxehouse open towards the East, and to be neere the fire: for fire is naturally beneficiall to cattell, both for the drying vp of the infectiue damps, and the keeping of the cattell warme. Besides, by seeing of the fire, they are made gentler, and by the heate thereof, what cold they haue taken in the pastures is expelled, and diuers inward diseases cured. The houses must be seuered with diuers roomes, enclosed &

racked, the racke muſt ſtand no higher then the Oxe may eaſily reach, and muſt haue ſuch pertitions, as one beaſt beguile not the other, whereto they muſt be well haltred and tyed, for hurting one the other: *Cato* would haue the pertitions lettiſed. Moreouer, it is to no purpoſe to feede them well, except you alſo looke to the keeping of them in health, and ſound, and therefore whether they be in houſe, or abroad, you muſt alwaies haue a ſpeciall regard vnto them, and to ouerlooke them in the night, ſpecially, if there be any Kine amongeſt them with Calfe. And though it be needefull at all times to ouerſee them, both morning and euening, yet moſt needefull is it of all other times, to ſee to them in the ſpring, when you firſt put them to paſture: for at that time, by reaſon of their change of diet, both Oxen, Kine, and Hayfars, are moſt in danger of ſickneſſe: in Winter againe to looke to them, that they be not, for ſparing of charges, kept ſo poore, as they be vtterly ſpoiled. And therefore you muſt ſpare no litter, ſpecially when they come from labour, to rubbe them, and dry them, ſtroking them with your hands, and raiſing the hide from the fleſh, which will doe them great good. In comming from worke, or out of the paſture, you muſt waſh their feete well with water, before you bring them into the houſe, that the durt and filth cleauing to them, breede no diſeaſes, nor ſoften their hoofes. Beware of too much cold, or heate, for too much of either, filleth them with diſeaſes. You muſt take heede they be not chafte, nor chafed vp and downe, ſpecially in hotte weather, for that bringeth them in a Feauer, or cauſeth them to haue a Flixe. Take heed alſo that there come neither Swine, nor Poultry neere their ſtalles, for both of them with their dounging poiſoneth the beaſt. The dounging of a ſicke Swine doth breede the peſtilence, or murraine amongſt cattell. You muſt away with all maner of carrions, and bury them well for infecting your cattell. If ſo be the murraine chance to come amongſt them, you muſt preſently change the ayre, and ſeuer your Cattell farre aſunder in diuers paſtures, keeping the ſound from the ſicke, that they be not infected, nor ſuffering them either to feede together, or drinke together. The Peſtilence, or Murraine, is a common name, but there are diuers kindes of it: in ſome Murraines, the cattell driuell, and runne both at the noſe and mouth, in others againe they be dry, and fall away more

The Murraine and his diuers kindes.

more and more: sometimes it comes in the ioints, and causeth them to halt before, or behinde: sometime in their kidnes, and appeareth by the weaknesse of their hinder parts, wherein they seeme to haue great paine in their loines. An other kind there is, that riseth like a Farcine, with pimples ouer all the body, now appearing, and presently vanishing, and comming out in a new place. An other sort, betwixt the hyde, and the flesh, wherein the humor sweateth out in diuers parts of the body. Sometime it is like a leprosie, when all the skinne is full of little pimples, & sometime a kinde of madnesse, wherein they neither heare, nor see so well as they were woont, though they looke faire and fatte, and lusty enough. Euery one of these kindes, are contagious and infectiue, and therefore as soone as you perceaue them infected, you must presently put them a sunder for infecting the whole stock, least you impute that to the wrath of GOD (as many fooles doe) which happeneth through your owne beastlinesse, and negligence. The common remedy (as *Columella* saith) is the rootes of *Angellica*, and sea Thistle mingled with Fenell seede, and with new boyled Wine, Wheat flowre, and hotte water to be sprinkled vpon them. The common people, when they perceiue either their Horse, or Bullock sick, or any other cattell else, they vse to take the roote of blacke Ellebor, called of some *Consiligo*, of others Bearefoote, and for a Bullocke, to thrust it in the Dewlap, for a Horse, in the brest, for Swine, or Sheepe, through the eare, making a hole with a bodkin, and thrusting the roote presently through, which the new wound holdeth fast that it can not fall out, whereunto all the whole force of the poyson doth straight waies gather, and runneth out in filthy water. Perfumes in this case (as *Vegesius* teacheth) doe much good, as Brimstone, vnslected Lime, Garlicke, wilde Mariorum, and Coriander seede, laied vpon the coles, and the Oxen so held, as they may receiue the smoke by their mouth and nose, that it may fill the braine, and their whole body with a healthfull aire. It is good also thus to perfume the whole body, both for the health of the sicke, and preseruing of the whole, Before I proceede any farther, I will set you downe what kinde of Spices, and what quantity you ought alwaies to haue in a readinesse for your Cattell. You must haue one pound of Fenicrike, halfe a pound of Liquerisse, one pound of Graines, Setterwoort.

Turme-

Turmericke, halfe a pound, or a quarterne of Bay berries, one pound of long Pepper, halfe a pound of Triacle of Gean, a pound of Anilleede, halfe a pound of Comin, halfe a pound of Madder, Oztment, halfe a pound. The hearbe whose roote you may vse (as I said before) groweth in many places in the woodes: it was once brought vnto mee by chaunce from Darndall in Sussex, by one Richard Andrewes, a good painfull searcher out of such thinges: the picture whereof, I haue here set before you, for your better knowledge. For beside hys present remedying of Cattell, he serueth against diuers diseases in a man, specially for the Quartane, as the learned *Mathiolus*, hath in his description of Plants mencioned. To returne to my Cattell: if they want their digestion, or chawe not Cud, which diseases is perceiued by often belching, and noyse in the belly, with forbearing of their meate, dulnesse of their eies, and not licking of them selues. Take a hand full of Pellitory of Spaine, as much of Hearbgrace, as much of Fetherfew, Sage, Horehound, and Bay salt, three pintes of very strong new drinke: seeth them together three or foure wallops, and giue it him bludwarme in the morning, not suffering him to drinke, till the afternoone: if you neglect this disease, so that hee be pained in the belly, and full of greefe, he will grone, and neuer stand still in one place. For remedy whereof, you shall bind his taile close by the Rumpe, as straite as may be, and giue him a quart of Wine, with a pint of the purest Dyle: and after driue him a pace for the space of a mile and a halfe: annoint your hand with grease, and rake him, afterwardes, make him run



For Crudity.

againe: some vse to let him blood in the taile, within a handfull of the rumpe. There is a disease which thy call the Wolfe, others the Taile, which is perceiued by the looseneſſe, or ſoftneſſe betwixt the iointes: take the Taile and feele betwixt euery ioint, and where the ioint ſeemeth to be a ſunder, or is ſoft and not cloſe as the other iointes, there take and ſlit him the longeſt way vnder the Taile, about two inches long, and lay in the wound Salt, Soote, & Garlicke, and binde it faſt with a clout about it. The Collick, or paine in the belly, is put away in the beholding of Geeſe in the water, ſpecially Ducks, (as you ſaid before of Horſes:) for the ſight of the Ducke, as *Vegetius* and *Columella* ſay, is a preſent remedy to this beaſt. For the Flix, or the Laſke, which in ſome places they call the Ray, take Sloes and dry them in powder, and gine it them to drinke: if it be the bloody Flixe, the old fellowes were wont to cure it in this ſort: They ſuffered not the beaſt to drink in three daies, and kept him faſting the firſt day, and giue him the ſtones of Reazins, or Grapes dryed and made in powder two pounds, with a quart of ſharpe tart Wine, and ſuffered them to drinke no other drinke, and made them eate the browſing of wilde Oliue trees, and Maſtixe trees: and if they mended not with this, they burnt them in the forehead to the very braine pan, and cut off his eares. The wounds, till they were whole, they waſhed with Ore piſſe: but the cut parts were to be healed with Oile & Pitch. If your Calues haue the Ray or Laſke, take ſweet milke, and put therein the Rennet of a Calfe, make it no thicker but as the Calfe may well drink it, and giue it him lukewarme. If your Bullocke haue the Cough, and if it be but beginning, giue him a pint of Barly meale with the yolke of an Egge, the Reazins boiled in ſweet Wine and ſtrained, a pint: mingle them together, & giue it him faſting. Alſo Graines beaten and mingled with Flower, fried Beanes, and meale of Lentils, all ſtirred together, and giuen him in a maſh. *Columella* would haue you gine them Graſſe chopt, and mingled with Beanes that are but a little broken in the Mill, and Lentils ſmall ground, and mingled with water. The old Cough they cured with two pound of Hyſope, ſteeped in three pintes of Water, and mingled with Flower, which they made him to ſwallowe, and afterwardes powred into him the water wherein Hyſope had been ſodden, alſo

The Taile.

The Flixe.

Laske in Calues.

The Cough.

also Peason, with Barly water, and sodden Hony, when they had the Cough, and Consumption of the Loonges. To keepe them a liue, they vsed to burne the roote of a Hasell, and to thrust it through their eares, giuing them to drinke a pint of the iuice of Leekes, with the like measure of Oyle, and Wine. For the Cough of the Loonges, I vse to giue them long Pepper, Graines, Fenegreke, Bays, Annisseede, Ointment balles, Turmericke, and Madder, beating them all together, and seething them in good Ale grounes. If your Calues haue the Cough, take Sentory, & beate it to powder, and giue it them. If they haue the Feuer, or Ague, you shall perceiue it by the watring of their eies, the heauinesse of their head, the driueling at the mouth, beating the vaines, & heate of the whole body: let them fast one day, the next day let them blood a little betimes in the morning in the taile, after an hower giue them a thirtie little stalkes of Colwoertes sodde in Oyle, Water, and Salt, which must be powred fasting into them, fiue daies together. Beside, you may giue them the toppes of Oliue trees, Lentils, or any tender brutings, or branches of Vines, and wipe their mouthes with a Spunge, giuing them cold water thrise a day.

The Feuer.

The blood falling downe into the legges, causeth them (as *Vegesius* saith) to halt, which as soone as you perceiue, you must straight waies looke vpon his hoofes, the heate whereof will declare his griefe, beside, he will scarse suffer you to touch it. But if so be the blood be yet aboue the hoofe in the legges, you shall dissolue it with good rubbing, or if not with that, with Scarifying, or Pouncing the skinne. If it be in the foote, open it a little with a knife betweene the two clawes, and lay to the sore, cloutes dipped in Vineger and Salt, making him a shooe of Broome, and be well ware he come not into any water, but stand dry. This blood, if it be not let out, will breed to matter, which will be long ere it heale: if it be opened at the first with a knife, & made cleane, and after cloutes dipped in water, Salt, and Oyle laide to it, and at the last annointed with old Swines grease, and Goates sute boyled together, it will quickly be whole. This disease, as I take it, the country people call the Fowle, or the Wilspe, which they sometime cure with drawing a rope of strawe, or heare through the Cleese, till it bleede, or by searing of it with a hot yron. If the blood be in the lower part of

Halting.

the

the hoofe, the vttermoſt part of the Clee is pared to the quicke, and ſo the blood let out, and after, the foot wrapped with clowtes, and ſhoed with Broome, you muſt open the hoofe in the middeſt, except the matter be ripe. If he halt by reaſon of the Crampe, or paine of the ſinewes, you ſhall rub his knees, thighes, and legs, with Salt and Oyle, till he be whole. If his knees, or iointes be ſwolen, they muſt be bathed with warme Vineger, & Linſeede, or Mylet beaten and laid to it, with Water and Hony. Alſo Spunges wette in hot water, and dryed againe, and annointed with Hony, are very good to be laid to the knees: if vnder the ſwelling there be any humour, Leauen, or Barly meale ſodde in water and Hony, or ſweete Wine, muſt be laid to it: and when it is ripe, it muſt be opened with a knife, and healed as before. All griefes generally, if they be not broken, muſt be diſſolued whileſt they are new, with bathes, and fomentations: and if they be old, they muſt be burned, and the burning annointed with Butter, or Goates ſuet. If he haue hurt his heele, or his hoofe, ſtone Pitch, Brimſtone, and greaſie Wooll, muſt be burnt vpon the ſore with a hot iron. The like muſt be done when it is hurt with a Stub, a Thorne, or a Naile, being firſt plucked out, or if it be very deepe, it muſt be opened wide with a knife, and ſo handled: for kibed heeles, take and caſt him, and bind his legges faſt together, then take your knife, and cut it out as nie as you can, & let him bleed well: then take a peny worth of Hertgreaſe, and the yolke of an Egge, and temper them well together, and binde them cloſe to the place, and ſhee ſhall heale. If the Vdder of your Kine do ſwell, you ſhal bathe them with Iuy ſodden in ſtale Beere, or Ale, and ſmoke them with Hony Combes, and Camomell. If the Bullockes feete be neare worne, and ſurbated, waſh them in Ore piſſe warmed, and kindling a fewe twigges, or ſprayes, when the flame is done, cauſe him to ſtand vpon the hot imbers, and annoint his hornes with Tarre, and Oyle, or Hogges greaſe. They will neuer lightly halt, if after they haue been laboured, their feete be waſhed well with cold water, and afterwards their paſterns, and the places betweene the Clees be rubbed with old Swines greaſe. The ſkabs, or manginelle, is gotten away with rubbing them with ſtamped Garlicke, which alſo cureth the biting of a madde Dogge: beſides, Peneriall, and Brimſtone, beaten and

Skabbes.

boiled

boiled with Oyle, Vineger, and Water, and after whilest it is warme, a little Alom made in powder, and cast into it, doth cure the skabbe, being annointed in the Sunshine. Others vse to annoint them with Butter, & Bullocks pisse: and some againe take Rozen, Tarre, and Wine, and vse it as a Pultesse. Hide bound, is when the skinne so stickes to his backe, that you cannot take it vp from the ribbes, which happeneth by suffering him to take cold after his sweate, or if after his labour he be wette with raine, or brought lowe with sicknesse: which, because it is very dangerous, you must looke, that when they come from their labour, and are hot, you sprinkle them with Wine, and giue them some peeces of fatte, or suet. But if they be already hide bound, it is good you seeth some Bay leaues, and with the warme decoction thereof, to bath his backe, and to rubbe him all ouer with Wine and Oyle mingled together, and to lift and pluck vp the skinne round about, and that broad, while the Sunne shineth. If his bleeding stench not after the cutting of the vaine, the remedy is to lay his owne doung to the place. A common medicine for all diseases (as *Vegetius* reporteth) is this: the roote of a sea Onion, the roote of a Poplar, and the common Salt, of each a sufficient quantity, lay them in Water, and giue it your Cattell to drink till they be whole: which also being giuen in the beginning of the Spring, for the space of fourteene daies, preserueth them from all Sicknesse. Now that you haue heard in what sort the old husbands did remedy the diseases in their Cattell, I shall briefely declare vnto you the remedies that are obserued in sundry diseases at this day, whereof I haue chopt in some amongst the medicines before. First for the Murraine: it beginneth at the first in the throt, and swelleth in the head, and rotleth with much noise in the throt, whereby it is perceiued: take a quart of new Milke, halfe a penyworth of Butter, a penyworth of Garlick, two penyworth of English Saffron, two penyworth of Cinamon, two penyworth of Turmericke, a quantity of Pearbegrace, a quantity of Bittony, mingle them all together, & giue it him warme: then take an aule, and thrust the toppe of his nose vpward, take but the very toppe to thrust through, and not to the headward, then let him blood in the necke almost a pottell, if he be able: saue the blood, and let it stand, if it change, he may liue, if not, he dieth. An other for the

Hide bound.

For the Murraine.

the same. Where he swelleth about the iawes, and vp to the eares, open him vnder the iawes to the roote of the toong, and get in your finger, and open it a good widenesse, then take a good peece of rusty Bacon, & a handfull of Raggewoort, stampe them well together, and fill the hole full with it: then let him blood at the nose, and the toong. A drinke for the same. Take Tansie, Hearbegrace, Longwoort, Hysope, Time, of each a like quantitie, halfe an handfull, stampe them, & take a quart of good Ale grounds, & seeth them a wallop, or two: take and straine it, & put the licour into a vessell, put therunto a penywoorth of Graines, a penywoorth of long Pepper, a penywoorth of Dytment, and a penywoorth of Fenegreke, giue it the beast, luke warme. The sickness of the Loongs is perceiued if the Dewlap be hard closed together very farre vp: also in hard feeling the hide vpon the backe, it cracketh, or snappeth much: also a short hulking, and thrusting out the toong withall: if it be much perished on the left side, he is vncurable, which you shal perceiue by the Hide, which will stick fast on that side, & likewise the Dewlap, if he be farre gon, he will grone much. The remedy for this disease, is to take long Pepper a penywoorth, round Pepper as much, of Graines two penywoorth, of Turmericke two penywoorth, of Fenegreke two penywoorth, of Mace as much, Cloues a penywoorth, of Anisseedes a penywoorth, of Madder two penywoorth, of Triacle of Gean, the vtter rinde of Walnuts dried, & made in powder, Juniper berries powdred, Dre Longwoort, Fetherfewe, Hearbgrace, Tansie, Horse Mintes, Bay berries powdred, a penywoorth of Garlicke, a quart of Chamberlie, a pint of Salt, a quantity of Butter. Setter him before, or immediatly after this medicine giuen. The order of Settring a Bullock is this: take Setterwoort, otherwise called Bearfoote, and Garlicke, like quantity, peele & stampe the Garlicke, and pare the Setterwoort clean, and wrap them well in Butter, then cut the Dewlap two inches behind the sticking place, to the brestward, and cut it alongstwise about two or three inches, and pull the Dewlap with thy finger, or with a sticke, round about one side from the other, as much as you can possible: Then put the Setterwoort, Garlicke, and Butter, as much as thou canst well put in, and thus doo on both sides the Dewlap, then rowle him so that the string may goe through both holes on both sides the Dewlap,

For the Loonges.

Settring of Cattell.

Dewlappe, alwaies remembring to cut the Dewlappe a hand broad, or aboue the bottome, and in any wise to rent him to the bottome, before you put in the medicine. The third day after the Setting, looke to the opening the wound, and let out the corruption (if it be come downe) if not, put in more of the medicine, and turne the rowle: and if it be much swollen, and hard, and will not rotte, take a hot iron, and take vp part of the sore, the skinne, & the flesh, in such place as thou seest most conuenient, so as it come not to the bone, and thrust the iron through on the one side, and on the other, or once right vnder, if the swelling be right beneath, and Tarre him well if the flies be busie. Which flies if they chaunce to get into the sore, take a cloth, or towell, and lappe it about a sticke, and put it into skalding hot Tarre, and so among the Magots, searching euery corner well. After you haue pearsed him with the hot iron, remember to take a little sticke, and Towe, and dipping it in Sallet Oyle, or wooll Oyle, to rub the hole where the iron passed. The sicknesse of the Gall, is knowen by the running eies, if he haue much yellow earewaxe, it is also discerned by the browne yellowes vnder the vpper lippe: the cure is this. Take Chamberlie, good Ale groundes, or Beere groundes, hard Soote in powder, Gallwoort, beasts Longwoort, Planten leaues, Hearbegrace, Hempseede, or Hemp toppes, Garlicke stamped, a peny worth of *Aqua vitæ*, for a great Bullocke, take almost a quart of this medicine, for a small Bullocke, lesse: when he hath drunke, take Salt, Loame of the wall, and leauened bread, and rubbe well his toong, and all the roofe of his mouth: then wash his backe, and chafe it well with Chamberlie luke warme: gether all these Hearbes in Sommer, and keepe them, and make them in powder. This medicine serueth likewise for the Loonges. If a Bullocke be diseased in the Liuer, he complaineth first in the legges, which will so grieue him, that he shall not be well able to stand, though he be in good liking: the remedy is this. Take a quart of good Ale (if it may be gotten) if not, take Beere, put therein Liuerwoort a good handfull, Woormewood as much, a penyworth of Garlicke, halfe a penyworth of Madder, a penyworth of round Pepper, as much long Pepper, a penyworth of Cloues and Mace, a penyworth of Triacle, mingle them together, the hearbes being powdred, and

The Gall, or Yellowes.

For the Liuer.

giue

giue the beast a drinke luke warme. The signes of the Blaine, are these: swelling about the face & the eye, and somewhat in the body: if it be in the body, it swelleth much there, the onely remedy is. Take and search him in the mouth, if you perceiue blisters vnder the rootes of the toong, or other place there abouts, then cut them to the bottome, and let them out and rubbe the place with Salt: search him also for the body at the fundament, by the arme or hand of some young stripling: and when his arme is in as farre as he can, let him turne his hand vpward, and feele for the blaines, or blisters, and breake them with his nailes, pulling them quite out: see that he annoint his hand well with Grease or Sope. There is a disease called the Sprenges, wherein he will smite his head backward to his belly, and stampe with his legges: you must put your hand into his fundament, as far as you can pull out the doung, then shall you finde bloud, pull the bloud quite out, and take a good handfull of Bay Salt, and put it in at twise, as far as you can: if he haue this disease, he will swell in the body, and couet much to doung. If he haue the Staggers, he will looke very red about the eies, and cast his head backward: take the fourth part of an ounce of Pepper, bruise it, and take halfe a pint of sharpe Vinegar warmed bloud warme, and powre it into his Nosethrils, and hold his head well vpward, and let him bloud at the Nose. If your Bullocke turne round, and haue the Dasye, you shall take him by the head, and feele vpon his forehead, and you shall feele it with your thumbe: cut the skinne crossewise right in the place, and wipe away the bloud as it doth encrease with a clout, and bind a cloth ouer his head, and keepe it warme. If your Oxen pisse bloud, keepe them foure and twenty houres from water, and then giue to euery one a little dishfull of rennet crudes in a quart of milke, let them not drinke in foure houres after. There sometime runneth a bloud vpon the backe of a Bullocke, which will make him draw his legges after him, and goe as if he were swaide in the Chine: cut off a toynt, or two of his taile, and let him bleede: if he bleede too much, knit his taile, or seare it. If he haue the Panties he will pant much, and shake in the flanke, and sometime shake downe: giue him a little rennet, with Soote and Chamberley. If he swell of the taint, or Stingworme, giue him wine, salt, and tryacle to drinke: if he be hidebound, stampe

The Blaine.

The Sprenges.

The Staggers.

The Dasie.

Pissing of blod

Panteys.

Taint.

Hidebound.

the leaues of Flozedelise, straine them, and giue the beast to drinke: if he chaunce to haue a stroke in the eye, take the iuyce of Smallege, Fenell, and the white of an Egge. The Gargyse, is a swelling beside the eye vppon the bone, like a botch, or a byle: if your Bullocks haue it, cut off round about it peeces of skinne as broade, then cut also round about those peeces one narrow lap of the skinne, which will keepe the disease from his lippes, for if it come to his lips, it is vncurable. Then take Chawberly, and Salte, and seeth them together, and wash the places where the skin is cut off, and wash it therewith euening and morning, till the swelling be gone: skraping off the skabbes, and other filth at euery dressing to the quicke, till the swelling be gone, not sparing it, so long as it wastreth, and runneth: when the swelling is cleane gone, take Nartreth, and runneth: when the swelling is cleane gone, take Nartuaile and Hony, boyled together blood warme, and annoint all the said places, which will both heale it, and cause the heare to come againe. We haue certaine medicines besides, that we vse generally for all diseases, as this, which is very soueraigne: take a handfull of beasts Loongwoort, a handfull of other Loongwoort that serueth for the pot, a handfull of inward rine of Elder, a handfull of Rewe, choppe them small, and put them into a pottle of good Ale, let them seeth till they be soft, then stirre them, and put in the licour a penywoorth of long Pepper, a peniwoorth of Graines, a peniwoorth of Liquerise, a peniwoorth of Annisseede, a half peniwoorth of Comen, a peniwoorth of Turmericke, all well beaten, and put into the licour, with a quarter of a pound of Madder: and whilst all these do seeth, take a great bowle dish, and put therein a handfull of Bay salt, halfe a handfull of Garlicke, foure new laid Egges, shells and all, two balls of Oztment, grinde all these things with a Pestel in the Bowle: then take the licour afozesaid from the fire, till it be halfe colde, and put the warme licour into the Bowle, with the Garlicke, Salt, Egges, and Oztment, brew it well together, and giue the beast to drinke bloud warme, or a little moze. Another of the same sort is this: Two peniwoorth of Comen, a peniwoorth of Grains, two peniwoorth of Annisseedes, a peniwoorth of Bay berries, a peniwoorth of Fenecrike, a peniwoorth of Turmericke, one ball of Oztment, a peniwoorth of Triacle, or rather for the Loongs, three or foure spoonefuls of Madder, beate them all together,

Gargyse.

For all diseases

ther, and put them in three quartes of drinke, set them on the fire, till they be blood warme, giue the beast no drinke in the morning before, nor till noone after in the Sommer, and in the Winter till night: or if you will, you may giue them this medicine following: take Flint soote, that is hard dryed vpon a post or roofe, and beate it into powder with Salt, then take running water, and seeth it, ranke Iuie, with the Soote and Salt, and when the Iuie is soft, take and wring out the iuice, and straine al together through a linnen cloth, and giue it your cattell to drinke blood warme, in the Spring, and at the fall of the leafe. *Bubale* called of the common people Buffes, of *Plinie Bisonte*, are common in Italy, beyond the *Apenin*: a wilde and sauage beast, that for their fiercenesse, are handled with rings of iron in their noses, of colour black, their bodies large, and mightie, their legges well set, and knit very strong, and in respect of their body, short, their hornes large crained, and blacke, their haire small and short, their tailes little, they are in those parts vsed for carriage, drawght, and like vses, as the Oxe. Of the milke of this beast are made Cheeses, that about Rome, and other places are greatly esteemed. *Columella* counts them to be strong meate, and heauy of digestion. So heere is all that for my share I haue to say, touching my cattell: now *HEDIO*, hold you the candell another while. The Buffes.

HEDIO. Next vnto the greater sort of cattell, the chiefest place is to be assigned to Sheepe: yea if you consider the great commoditie and profit, they are to be preferred before them: for as Oxen serue for the tilling of ground, and necessary vse of men, so is to this poore beast ascribed the sauegard of the bodie, for the Sheepe doth both with his fleese apparaile vs, and with his milke and holesome flesh, nourish vs (as the Poet witnesseth.) Sheepe.

Poore beast that for defence of man, at first created wast,
And in thy swelling vdder breast, the iuyce of daintie tast:
That with thy fleese keepst off the cold, that should our limbs assaile,
And rather with thy life, then with thy death, dost vs anaile.

Of sheepe there are sundry breeds. The ritch & the champion countrey, breedeth a large and a great sheepe: the barraine and the cliffy, a reasonable stature: the wilde and the mountaine ground, a small and a weerish Sheepe. The olde husbands, did greatly commend

the breed of *Milet*, *Appulia*, and *Calabria*, and moſt of all the breede of *Tarento*, next of *Parma*, and *Mutena*. At this day for the fineneſſe of their fleeſe, are moſt in price the Sheepe of England, of Germany about the Rhine, and of France. *Varro* counſelleth all ſuch as would bye Ewes, to haue their chiefe conſideration of their age, that they be neither too old nor too young: the one of them not yet come to it, the other already paſt profit: but better is that age, whereof there is ſome hope, then where there followeth nothing but a dead carcaſſe. Your beſt is therefore to bye them at two yeeres old, and not to meddle with ſuch as are paſt three: their age is to be knowen by their teeth, for the teeth of the old ones are worne away: next muſt you looke, that your Ewe haue a large body, deepe woolled and thicke ouer all the body, ſpecially about the necke and the head, and good ſtore vpon the belly: for ſuch as were bare necked and bellied, the old huſbands alwaies refuſed. The necke muſt be long, the belly large, the legges ſhort, though the Sheepe of England be long legged, the taile in ſome country ſhort, in others very long: for in *Arabia* ſome haue tailes a cubite long, but wonderfull broad: others, (as both *Herodotus*, and *Aelianus* affirme) three cubites long, ſo that the ſhepheards are forced to tye them vp, for being hurt with trayling vpon the ground. In *Aegypt*, a Rammes taile hath been found to wey twentie pound and more.

The choyſe of Ewes.

Rammes.

The Ram muſt haue his hornes great, winding inward, and bending to the face, though in ſome place they haue no hornes at all, and yet no better Rammes: the hornes muſt rather crookle inward then grow ſtraight vp. In ſome countries, that are wet, & ſtormy, Goates and Rammes are to be choſen that haue the greateſt and largeſt hornes, whereby they may defend their heads from ſtorme and tempeſt, and therefore in colde & ſtormy countries, the horned Rams are beſt, in mild and gentle climates, the pold. Beſide, there is this inconuenience, when he knowes himſelfe to be armed, he wil alwaies be fighting, and vnruly among his Ewes, and though he be not able to ſerue the turne himſelfe, yet will he ſuffer no other Ramme in the flocke, till he be euen cloied, and lamed with lechery. The Pollard on the other ſide, finding himſelfe vnarmed, is milder & quieter by much: wherefore the Shepherds, to reſtraine the rage of the vnruly, do vſe to hang before his hornes a little boord

with

with sharpe prickes inward, which keepes him from his madnesse, while he perceiueth himself to be hurt with his owne bloud: others say, that if you pearce his hornes with a wimble nere to the eares where they winde inward, he will leaue his brawling. In some places also the Ewes are horned: but to the Ramme his eies must be browne, his eares great, his brest, shoulder, and buttocks broad, his stones great, his taile broade, and long: you must looke beside, that his toong be not black, nor pecled, for commonly such will get black and pied Lambes, as *Virgil* noteth.

And though the Ramme in sight be white as snow,
If black within his iawes his toong be wrought:
Refuse him quite, least if he leape thy Yewe,
He do infect thy folde with colour nought.

Bie not your Sheepe but washed and vnshorne, that the colour may plainlier appeere, the white colour, as it is the beautifullest, so is it the profitablest. In March is your best bying of Sheepe: for shepheards like such as haue well worne out the winter. Whosoeuer will be a sheepemaster, must regard the abilitie of his ground: for it is not enough to haue pasture in Summer, but they must be well prouided for in winter, in any wise you must haue store of pasture, and better it is, and more profitable to the Master, to keepe a few Sheepe well, then a great number with scarsitie of pasture. *Florentinus* is of that fancie, that he would your number should rather be odde then euen, thinking that number more fortunate, for the healthinesse, and long continuance of the cattell: but these are superstitious toyes, as are a great number of others imagined by the faithlesse. Be sure euery yeere once, to make your muster, and supply the places of such as are dead, or sicke, with a new and a sound number, so that the Master be not deceiued with an old vnprofitable flocke. The hardnesse and crueltie of the cold Winter, doth often times beguile the shepheard, and destroyeth many of his flocke: whereof (presuming of their strength in the end of the summer) he had made no supply, and therefore *Columella* is of opinion, that the age for breede ought not to be lesse then three yeeres, nor aboue eight, both because that neither of the ages is meete to be kept: and also that whatsoeuer commeth of an old stocke, hath lightly a smack of his old parents imperfection, and proueth either

When to bie Sheepe.

to be barraine, or weake. The selfe same *Columella* would haue the Ewes to be put to the Ramme after they had passed two yeere old, and the Ramme to be of fiue yeere olde, and after seuen, to decay. In many places at this day, they suffer both the kindes to breede from two yeere old, till nine: but before two yeeres, it is not good to put either the Ramme, or the Ewe to breede, although in most places they suffer the Ewe at a yeere olde. The Ramme is put by his purpose, by the Wickers, or Bulrishes, tyed to the Ewes tayle, but more commodiously, by going in seuerall pastures: howbeit, they are not commonly seuered, but suffered to go together. The Rammes that you would haue to serue your Ewes, must afore the blossoming, be kept in good pasture, for two monethes, whereby they may the better be able to doe their businesse: but in our country, we commonly suffer them to feede together. To increase their lustes, you shall giue them in their pasture the blades of Onions, or Knotte Grasse: They rather couet the old Ewes then the youug, because they be easlyer to be entreated, and the Rammes themselues in age be the better. By knitting of the right stone, you shall haue Ewe Lambes, and of the left, Rammbe Lambes: also their blossoming in the Northwind, getteth Ramme Lambes, and in a Southwind, Ewe Lambes. One Ramme (as *Didymus* affirmeth) suffiseth for fiftie Ewes: when they haue all conceaued, the Rammes must againe be banished, for dangering and harming the Ewes. During the time of their blossoming, they are to be watred in one place (as both *Varro* and *Plinie* affirme) because the change of water both discoloureth the wooll, and dangereth the Lambe. The policie of *Iacob* the Patriarche, in procuring of partie coloured Lambes, is well enough knowen. The best time for blossoming, is from the setting of the Bearward, to the setting of the Egle: (as *Varro* and *Columella* haue written) which is (as *Plinie* interprets it) from the third Ides of May, till the thirteene Kalends of August, other thinke it good all the yeere long, many prefer the winter Lambe before those that fall in the Spring, as a creature that of all others best brooketh his winter byrth. The thunder, if the Ewes goe alone, makes them cast their Lambes, and therefore it is good to let them goe with companie, for auoiding that perill: they goe with Lambe 150. daies, or fiue monethes,

monethes, such as are afterward damned, are feeble and weake, and such were of the olde writers called *Cordi*: for the most part they bring but one Lambe a peece, yet oftentimes two, and if they be well fedde, fiue at a time. It hath been seene in Gelderland, that fiue Ewes haue had in one yeere fiue and twentie Lambes: it may seeme peraduenture to many vncredible, and yet no great maruaile, since they haue twise a yeere most times two, and sometime fiue at a time. The Shepherd must be as carefull as a Midwife in the yeaning time, for this poore creature (though she be but a Sheepe) is as much tormented in hir deliuerie, as a shrew, and is oftentimes the more dangerously vexed and payned in hir labour, in that she is altogether without reason: and therefore it behoueth the Shepheard to be skilfull in medcening of his cattell, and so cunning a Midwife withall, as if neede require he may help his Ewe, what danger soeuer happen. The Lambe as soone as he is fallen, must be sette on foote, and put to the dammes vdder, and oftentimes his mouth held open, the milke must be milked in, that he may learne to suck, but before you do this, you must be sure to milke out the first milke called *Colostra*, whereof I will speake hereafter: for this, except some quantitie be drawne out, doth hurt the Lambe: if the dam dye, you must suckle it with a horne: if the Lambe will not of himselfe sucke, he must be put to it, and his lips noynted with sweete Butter, and Swines grease, and seasoned a little with sweete Milke. As soone as they are Lambed, they must be shut vp together with their dambes, whereby both the dambe may cherish them, and they learne to know their dambes. Afterward, when they begin to waxe wanton, they must be seuered with Hardelles: or (as *Varro* writeth) after tenne daies they must be tied to little stakes with some gentle stay, for hurting of their ioynts, and waxing leane with too much play. The weaker must be seuered from the stronger, for hurting of them. And in the morning betimes, before the flock goe to pasture, and in the euening when they be full, the Lambes must be put to their dammes: and when they waxe strong, they must be fed in the house, with Clouer, and sweete grasse, or else with Bzanne, and Flowre. And when they haue gotten greater strength, they must be let out with their dambes about noone, in some sunnie & warme close neere adioining.

In the meane time, you must not deale with milking of the Ewes, so shall you haue them to beare the more wooll, and bring the more Lammes. When the Lammes are taken from their Dammes, good heede must be had, that they pine not away: and therefore they must be well cherished in their weaning time with good pasture, and well kept, both from cold, and extreame heat. Now after that they haue forgotten the vdder, that they care not for their dams, then shall you let them feede with the flocke: howbeit in most places the Lambes are suffered to feede in the flock together with their dams, and to sucke till harueſt time, till the dams themselues do weane them. *Varro* would haue you not to geld your Lambes vnder fiue moneths old, and that in a season neither too hot, nor too colde: but experience teacheth vs, that the best gelding is vnder the damme when they be youngest: for in the elder (as in all other beasts) it is dangerous. Those that you will keepe for Rammes you must take from such Ewes as vse to haue two at one time. The best pasture for sheepe, is the Grasse that is turned vp with the Plow, and groweth vpon fallowes: the nert is that, that groweth in dry Meddowes: the marshy ground is to be refused, and that which groweth neere vnto Lakes and Fennes: the plaine and the champion Feeldes and Downes, are best for the delicatest and finest wolled Sheepe. To be short, the shorter and finer the Grasse is, the meeter it is for Sheepe: and yet is there no pasture so good, or so fine, but with continuall vse your Sheepe will be weerie of, except the Shepheard remedie this fault with giuing them salt, which (as a sauce to their foode) he must set readie in Sommer when they come from pasture, in little troughes of wood, by licking whereof they get them an appetite both to their meate and their drinke. For where as Sheepe wareth soonest fat with watring (as *Aristotle* affirmeth) you must in Sommer euery fifth day let them haue salt, a peck to euery hundred: so shall your sheepe be alwaies healthy, ware fat, and yeelde you plenty of milke. Moreouer, against the Winter rotte, or hunger rotte, you must prouide to feede them at home in Cratches. They are best fedde in the warmer countreys, with the leaues and broustings of Elme and Ash, and the haie that is made after harueſt in the end of Sommer, because it is softest, and therefore sweeter than the other. With what heede

and

and carefulneſſe this cattell is to be fedde, *Virgill* declares, who wils a regard to be had of the time, both of their watring, and feeding.

When Sommer faire with Weſterne windes doth call,
Your luſty flockes to woods and paſture ſend
Betimes, when day doth ſpring and ouer all
The gladſome graſſe the hoary dew doth bend.
From thence when as the fourth houre of the day,
With lofty Sunne doth make them dry to bee,
To wels or waters deepe go take thy way,
And make them drinke in troughes of Oken tree.

But in the noone time, and the heat of the day, you muſt driue them to the valleies, and ſhades, (as he ſaith) a little after.

Whereſoeuer of Ioue the ancient Oken tree,
His broad and mightie branches ſpreads, or where
In ſacred Grones of Holmes the ſhadowes bee.

After when the heat is paſt, you muſt driue them againe to the water, and ſo bring them againe to field.

When Sunne is ſet, and euening ſtarre appeeres,
Then cooles the aire, and dewie Moone ſhee cheeres.

Varro affirmeth, that they deuided their Paſturing times in *Puglia* after this maner. Firſt they put them out to paſture betimes in the morning, when as the dewie graſſe doth far exceede in pleaſantneſſe, and ſweetneſſe: the Graſſe that beeing burnt with the heat of the Sunne, is ouer dry. About noone againe, till it ware cooler, they are to be driuen vnder ſome cold, or watrie rockes, and broad ſhadowed trees, and toward the euening be ſuffered to feed till Sunne ſet, alwaies hauing regard, that in their driuing, their heads be from the Sunne: for no beaſt is ſo tender headed. Within a little after the ſetting of the Sunne, they muſt be driuen to water, and after ſuffered to feed againe, till it be darke: for then is the paſture ſweeteſt. This order is to be obſerued from the riſing of the ſeauen Starres, and the leſſer dogge, till the latter *Aequinoctial*. Tha like doth *Columella* and *Plinie* teach, that after the riſing of the Dogge, the flocke muſt afore noone be driuen Weſtward, and feede with their face toward the Weſt, and after noone they muſt be brought againe Eaſtward. The feelues whence the

corne

corne is newly had off, is good to Pasture them for two causes, both for that they are well fedde with the leauings of the sheaues, and that with the trampling of the strawe, and dounging, they make the ground richer against the next sowing: but our Countrie men doe not well like, that Sheepe should feede vpon the eares of Wheat. The Pasturing of them in the other seasons, as Winter, and the Spring, differs in this point, that they put them not abroad, till the Sunne haue drawne vp the dew, and hurtfull vapours of the ground, and so feede them all the day long, thinking it sufficient to let them drinke at noone: but our husbands vse not to suffer their sheepe to feede abroad in the Sommer time, neither before the Sunne rising, nor after the setting, by reason of the dew being more hurtfull in Sommer, then in Winter. In Winter, and the Spring time, they keepe them in a fold, till such time as the Sunne hath drawne vp the Rimes, and hoare frostes from the feeldes: for the frostie graslle at this time of yeere, stops their heads with Rhume, and fils their bellies full of water: and therefore in the cold & wette seasons of the yeere, it is enough to let them drink once a day. Moreouer the Shepheard, as also the keeper of all Cattell, must deale gently, and loungly with their flocke, and comforting, and cheering them with singing, and whistling: for the *Arabians* (as *Alianus* writeth) doe find, that this kind of cattell taketh great delight in Musick, and that it doth them as much good as their Pasture. Beside, they must be well ware in the driuing of them, and ruling of them, that they guide them with their voice, and shaking of their staffe, not hurting, nor hurling any thing at them, nor that they be any time farre off from them, and that they neither lye, nor sit: for if they goe not forward, they must stand: for it is the Shepheards office to stand alwayes as hie as he can, that he may plaine and easily discerne, that neither the slow, nor the great bellied in laning time, nor the quick, nor the liuely, while they roame, be seuered from their fellowes: and least some theefe, or wilde beast, beguile the negligent shepeheard of his cattell. Of their Pasturing, I thing I haue spoken sufficiently, and therefore

Sheepecots. I meane now to shew you of their houses, or sheepecots, whereof there ought to be a speciall regard, that they be conueniently placed, not subiect to windes, nor stormes, and that they rather stand

toward

toward the East, then toward the South. *Columella* would haue them built low, and rather long then broad, that they may be warme in the Winter, and that the straightnesse of the roome hurt not the yoong. And beside, he would haue them stand toward the South: for this beast (though his garments be warme) cannot away with cold weather, neither yet with the great heate of the Sommer. I haue seene some Sheepe houses so framed, as they haue had their gates toward the South, and toward the East, that they might answere to the seasons of the yeere. *Columella* would haue the House set toward the South, and on the backside a close Posterne, where they may safely take the aire. You must looke besides, that where they stand, the ground be made faire and euen, something hanging, that it may be clean kept, and that the vrine may be well voided away: for the wetnesse hereof doth not onely hurt, and corrupt their feete, but also spoileth their coates, and maketh them rooke & ill fauoured. Let there be no moisture therefore, but alwaies well strawed with drie ferne, or strawe, that the Ewes that be with yoong, may lye the softer and cleaner. Let their beddes be very cleane, for the cleaner they lye, the better they feede: let them in any wise be well fedde: for a small number (as I said before) well fed, yeeld more profite to their Master, then a great flocke barely kept. You must also haue seuerall partitions to keepe the weaker and the sicke, from the strong and vnruly. And thus much of housed Sheepe, that are euery day brought home, but in some places they are kept abroad, farre from either towne, or house. In Forrests, and open wilde feeldes and downes, in these places the Shepeheard carrieth with him his Hardels, and his Nets, and other necessaries, to folde his flocke withall. In the desart feeldes, when as the Winter pastures, and the Sommer pastures, are distant certaine myles a sunder (as *Varro* saith) he would haue the flockes that haue wintred in *Apulia*, to be kept in Sommer vpon the mountaines of *Kiete*: and *Virgill* thus writeth of the Shepeheards of *Lybia*.

What should I heere of Lybian Shepheards tell,
Or of their pastures write, and dwellings poore:
That night and day on downes, and desarts dwell,
Where wanders still the flock without the doore:

And

And on the ground doth lie the Shepeheard heare,
While he remoues with him continually:
His house, and all his houſehold goods doth beare,
His ſtaffe, his dogge, and all his armory?

The like haue I my ſelfe ſeene in Swytherland, and other places of Germany, where the Shepheard, lying ſtill abroad with his flocke, foldes his Sheepe in the night with Hardels, tying their dogges about them for watchmen: the Shepheard him ſelfe in a little houſe vpon wheeles, ſleepes harde by his charge. The ſheepe of *Greece*, *Aſia*, and *Toranto*, and thoſe which they call couered ſheepe, are commonly vſed to be kept in houſes, rather then abroad, for the excellencie and fineneſſe of their wooll.

EVPHOR. What times do you appoint for the ſhearing of your Sheepe?

Shearing of Sheepe.

HEDIO. The times of ſhearing, are not in all places one, but varry, according to the diſpoſition of the ayre, the cattell, and the countrey: the beſt way is to haue good regarde to the weather, as the ſheepe be not hurt by ſhearing in the cold, nor harmed by forbearing in the heate. In ſome places they haue two ſeaſons in the yeere for ſhearing of their ſheepe: the firſt ſeaſon for their ſhearing, is either with the beginning of May, or elſe with the ending of Aprill: the ſecond ſeaſon of their ſhearing, is about the beginning of September. Such as doe vſe to ſheare their ſheepe but once in the yeere, do commonly appoint for their ſeaſon, the tenth of the moneth of June, about which time alſo ſuch as doo ſheare twiſe a yeere, do ſheare their Lambes. Three daies before you ſheare them, you muſt waſh them well, and when they be full drie, you may ſheare them: they doe not in all places ſheare their ſheepe, but in ſome places (as *Plinie* ſaith) pull them. The old huſbandes did accompt for the beſt wooll, the wooll of *Puglia*, and that which in Italy was called the Greeke fleeſe: the next in goodneſſe they tooke to be the wooll of Italy: in the third place they eſteemed the *Mileſian* fleeſe: the wooll of *Pullia* is but ſhort, and meete to be worne onely in ryding clokes. The wooll about *Toranto*, and *Canas*, is thought to be paſſing good: but the beſt at this day, is the wooll of England. The finer you paſture is, the finer (as it is thought) you ſhall haue your wooll. The wooll of ſuch ſheepe as

are

are slaine by the Woolfe, and the garments made thereof (as *Aristotle* saith) is aptest to breed lice. If you happen in the shearing to clippe the skinne, you must foorthwith annoint it with Tarre: when you haue shorne them, some thinke it good you annoint them, with the iuice of sodden Lupines, Lees of olde Wine, and the dregges of Oyle made in an oyntment, and after three dayes to wash them (if it be neare you) in the Sea, or if the Sea be farre of, with raine water sodden with Salt. And being thus ordred, you shall not haue them to loose their wooll all the yeere, but to be healthy, and to carry a deepe and a fine fleese, and therefore *Virgill* biddes you,

Go plondge them oft in healthy streames.

There be some againe, that would haue you to annoint them three dayes in the yeere, the dayes beeing soone after you haue washed them with Oyle, & Wine, mingled together. Against Serpents, that many times lie hid vnder their cribbes, you must burne Cedar, *Galbanum*, or womans Heare, or Hartes horne: in the end of Summer is your time for drawing and seuering of them (as I told you before) when you must sell your Sheepe, that through feeblenesse, they faile not in the Winter. Beside, killing one or two of them, you must looke well vpon their Liuers, and if the Liuer be not sound (for hereby is foreseene the daunger) then either sell them, or fatte them, and kill them: for very hard it is to saue them, their Liuers being perished. Infected Sheepe, are more subiect to skabbes and manginesse, then any other cattell, which commeth (as the Poet witnesseth,)

When coldest stormes doe wette them neare,
And hoary frostes on ground appeare.

Or if you wash not off the sweat of the Summer with salt water, or otherwise. If when they be shorne, you suffer them to be hurt with brambles, or thornes, or if you put them into houses, where either Horses, Mules, or Asses haue stand, but specially lacke of good feeding, whereof proceedeth poorenesse, and of poorenesse, skabbes and manginesse. The sheepe that is infected, is thus knowen: if he either scratch, stampe with his foote, or beate him selfe with his horne, or rub him selfe against a tree: which perceiuing him so to doe, you shall take him, and opening his wooll, you

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ſhall find the ſkinne ruffe, and as it were itchy: Diuers men, haue diuers remedies for this maladie, but ſuch as are not at hand to be had, *Virgill* thinkes there is no preſenter remedy,

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Conſtantine out of *Dydimus* affirmeth, that the ſkabs of Sheepe are healed by waſhing them with vine, and after annointing them with Brimſtone, and Dyle. The common Shepheards, when they perceiue a Sheepe to fall a rubbing, they ſtraightwaies take him, and ſhedding the heare, doe ſeare the place with Tarre: other doe teach other remedies more hard to be come by, which are not for euery Shepheard, nor euery Countrie to vſe. And if the whole flocke be infected, it doth many times ſo continue, as it ſhall be needfull to change houſes, and (which in all other diſeaſes behoueth) both countrey and aire. This one alonely medicine haue I alwaies proued for the keeping in health of this cattell, to be moſt preſent & ſoueraine: take the berries of Iuniper, beate them ſmall, and ſprinckle them with Dates and Salt, mingle them all together, and giue it your Sheepe, three or foure times in the yeere: for though they refuſe to eate the Iuniper berries of themſelues, yet for the deſire of the Salt, and the Dates, they will eaſily take them all together. If they be lowſie, or full of tickels: they vſe to beate the rootes of Maple, and ſeething them in water, and opening the wooll with their fingers, they powre the licour, ſo as from the ridge of the backe, it run ouer the body. Others vſe the roote of Mandrake, beeing well ware that they ſuffer them not to taſt it. If they haue the Feuer, you muſt let them blood in the heele, betwixt the two Clees, which the Poet teacheth, ſaying:

It eaſeth ſtraight the flaming feuers paine,
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Some let them blood vnder the eies, and ſome behind the eares. The Fowle, a diſeaſe betwixt the Clees, is taken away with Tarre, Alome, Brimſtone, and Vineger, mingled together: or powder of Uerdigreaſe put vpon it. The ſwelling betwixt the two Clewes, muſt be cut with great warineſſe, leaſt you hap to cut the woorme that lieth in it, for if you doe, there commeth from hir a hurtfull matter, that poyſoneth the wound, and maketh it vncureable.

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A Sheepe, or Swine, that hath the Murraine of the Loonges, you shall helpe by thrusting through their eare, the roote of Setterwoort: this sicknesse doth commonly spring of want and scarsitie of water, and therefore (in Summer time specially) you must suffer no kind of Cattell to want water. Their legges if they happen to be broken, are to be cured in like sort as mens be, being wrapped first in Woolle dipped in Oyle, and Wine, and afterward splented. The yoong Lambes, and other Sheepe also while they goe abroad, are troubled with skabbes, and mangines about their lippes, which they get by feeding vpon dewie grasse: the remedie, is Hysope, and Salt, of eche a like quantity beaten together, and their mouthes, their pallats, and their lippes rubbed withall: the vlcerous places, must bee annointed with Vineger, Tarre, and Swines grease. If they chaunce to swell with eating of any woorme, or venemous grasse, you shall let them blood in The Murraine of the Loongs

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The Murraine of the Loongs

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Goates.

in the vaines about the lippes, and vnder the taile, and after powre into them Chamberlie. If they happen to swallow a Horseleach, powre into them strong and tart Veneger warme, or Oyle. Against the Murrion, or the Rotte, I haue seene giuen them, certaine spoonefuls of Wine, and after a little Tarre: this medicine was vsed by Master John Franklin of Chart in Kent, who was in his life time a skilfull husband, and a good housekeeper. In like sort haue I seene this medicine: Take for euery sore, one penywoorth of Triacle, and likewise one little handfull of Hempseede, ground Iuie, Elder leaues, and Fetherfewe, as much as a tennisball of loame, and as much Bay salt, put thereto Chamberlie, and a little Soote, make it all luke warme, and giue to euery one three spoonefuls good, and after euery one a little Tarre, before they goe out of hand. In some places they vse to take the dried flowres of Mozmewood, and mingling them with Salt, they giue them to their Sheepe, as a generall medicine against all diseases. This medicine is commended by *Hieronimus Tragus*, both for asswaging of any paine, & driuing away any hurtfull diseases from Cattell.

Master Iohn Franklin.

EVPHOR. Good *HEDIO* forget not to speake something of your Goates.

HEDIO. Goates haue many thinges common with Sheepe, for they goe to Bucke at one time, and go as long with yoong, as Sheepe doe: they yeeld commodity with their flesh, their Milke, their Cheese, their Skinnes, and their Heare: the heare is profitable to make ropes of, and packes, and diuers like instruments belonging to sea men, by reason that it neither rottes with moisture, nor is easily burnt with fire. *Varro* maketh mention of two sortes of them, a heary sort, and a smooth. Such as haue Wennes, or Wartes, vnder their chinnes, are taken to be most fruitful: their Vdders would be great, their Milke thicke, and the quantity much. The hee Goate would be softer heared, and longer, his Necke short, his Throat boll deeper, his Legges fleshy, his Eares great and hanging: it is thought better to bye the whole flocke together, then to bye them seuerally. At the Chinne of euery one of them hangeth a long beard, which *Plinie* calleth *Aruncum*, by which, if any man draw one of them out of them out of the flocke, the whole flocke (as amazed) stand gazing vpon him. The hee Goate, because

of his beard, and (as *Alianus* saith) by a certaine instinct of nature, preferring the male before the female, goeth alwaies before his woman. The bargayning for this cattell, is not after the maner of bargayning for Sheepe: for no wise man will promise that they be free from sickneſſe, being as they be, neuer without the Agewe: but he assures them that they be well to day, and can drinke. One thing is to be woondred at in this beast, that he draweth not his winde as all other beastes do at his Nose, but at his Eares. The best kindes of them, are those that bring foorth twise a yeere, and such you must seeke for your breede. The Goate is able to engender at seuen moneths old, being euen as lecherous as a Goate: for while he is yet sucking, he will be vppon the back of his damme: and therefore he waxeth feeble, and vnable, before he be sixe yeeres old, being now soked and consumed with his ouertimely lustineſſe of his youth: and therefore after he come to be fiue yeere old, he is no longer to serue your turne for breede. The time when you shall suffer them to go to rutte, is in *Autumne*, a little before December, that at the comming of the Spring, and blossoming of the trees, the young may be brought foorth. The Goate goeth with young (as I said) fiue monethes, as the Sheepe doth: she brings foorth commonly two, and sometime sixe (as *Plinie* witnesseth.) Such as beare twise, you must keepe for your stocke, for the renuing thereof, and the encreaſe. As touching their breeding, you must in the end of *Autumne* seuer your bee Goates. The young Goates of a yeere old, and two yeeres, bring foorth Kidds: but (as *Columella* saith) they are not to be suffered to bring them vp, except they be three yeeres olde: and therefore you must away with the young, that the Goates of the first yeere may breede: and suffer the Kidde of a two yeere damme, to suck no longer then it is meete to be solde. When the Kidds are brought foorth, they must be brought vp in like sorte as I told you of the Lams: sauing that the wantonneſſe of the Kidde is more to be restrained and heedelier to be kept in, and must be fedde beside their milke, with young bowes. *Plinie* affirmeth, that they be skarse good for breede at three yeere olde, but if they passe foure, they be starke nought, and that they begin at seuen moneths, euen while they be vnder the mothers breast. The first riding prospereth not, the second is some-

what to the purpose, the third spreadth, she brings forth, till she be eight yeeres old, and therefore the she Goates, when they be aboue eight yeeres, is not to be kept: for she then becommeth barraine. Those which want hornes (as in the male kinds) of all others be the best: for the horned, by reason of their weapons, are hurtfull and vnruly. Besides, the female of such as lacke hornes, do giue alwaies greater plenty of milke: but *Columella* (as he commendeth the Pollardes in a temperate and milde Country) so in a boisterous and a stormie Region, he would haue them horned. Such as haue hornes, doe shewe their age by the circles of their hornes: it is thought, that they see as well by night, as by day, and that they alwaies lay their faces turned one from the other, and in that order also feede. Cold (as it is said) is very hurtfull to this kinde of Cattell, specially to those that be with young, as likewise the extreame heate. The wit of this beast *Nutianus* reporteth, he once had experience of, whereas a couple of them chaunced to meete vppon a very long and narrow Bridge, and the straightnesse would not suffer them to turne, and to goe backward blindfold in such a straight, considering the swiftnesse of the streame vnder them, was more vnpossible, the one of them lying downe the other passed ouer his body. *Varro* doth commend sundry little flocks kept seuerall, rather then great flockes together, vsing for example one *Gaberius*, because a great flocke is sooner subiect to the murrine, thinking fifty to be enough for one flocke. *Columella* also affirmeth, that there ought not to goe aboue one hundred of them together, whereas of Sheepe he alloweth a thousand in one flocke. The biting or brusing of them, is poison to all kinde of Trees, and therefore were they in old time sacrifised to *Bacchus*, because they were so hurtfull to Vines. Their stables *Columella* would haue to stand vpon a stony ground, or els to be paued, for this beast needeth nothing vnder him but a fewe bowes: when he lieth abroade, the shepheard must often sweepe and make cleane their houses, not suffering any doung, or moisture, to remaine in them, that may be hurtfull to the flocke: for as I said before, they are seldome without Feuers, and much subiect to the pestilence. And whereas other cattell, when they haue the Murraine among them, as soone as they be infected, beginne to languish, and pine away: onely these Goates

as soone

as soone as they be taken, though they be neuer so lustie to looke vpon, suddenly fall downe together, and die as thicke as Haile: which disease doth chiefely happen, by too much rankenesse of pasture. And therefore as soone as you perceaue one or two of them fall downe, let the whole flocke bloud with as much speede as you may, and suffer them not to feede all the day, but shut them vp the foure middle houres of the day. If they be diseased with any other sickenesse, you must giue them the Rootes of Reedes, and of the great white Thistle, stamping them with iron pestels, and strained with raine water let them drinke it: and if so be this medicine heale them not, your best will be to sell them, or to kill them, and pouder them: and when you bie newe, bring them not home too hastely, till the disposition of the aire be altered. If they fall seuerally sick, cure them in such sort as you do your Sheepe. *Florentinus* saith, if you stamp with water the guisard of the Storke, and giue them to drinke a spoonefull a peece, it preserueth both Sheepe and Goate from all murraine and pestilence. If their bellies be swelled with water, which the Grecians call ὑδρωπα, the Dropsey, if the skinne be launced a little vnder the shoulder, it lets out the hurtfull matter, and you may heale the sore with Tarre.

EVPHOR. You haue for your part very well satisfyed vs, touching the good ordering of your Cattell: there remaines yet one thing for you, which we all forgate to speake of, and that is the ordering of Milke, our chiefest foode and sustenance.

HEDIO. Seeing that of this Cattell whereof I haue entreated, the profit of the milke is not small, it is no great reason we should ouerpasse the ordering of the same: for Milke (as *Varro* saith) of all liquid thinges wherewith we feede, is the greatest nourisher. Milke differeth in goodnesse according to the nature of the bodies that giue it: as the milke of Women, of Kine, Sheepe, Goates, Asses, Mares, and Cammels: the greatest nourisher is Womans milke, the next Goates milke, whereby the Poets faine, that their god *Iupiter* himselfe was nursed with Goates milke: the sweetest next to Womans milke, is the Cammels milke: the holesomest, is Asses milke, the Asse as soone as she is with Colt, giueth milk: the Cow, neuer till she hath calued: most cõfortable to the stomack is Goats milk, because he rather feedeth Milke.

on Bruttes and bowes, than vppon grasse. Cow milke is most medicinable, and most of all looseth the belly. Sheepes milke is sweeter, and nourisheth more, but is not so good for the stomacke, by reason it is fatter and grosser. All milke that is milked in spring time, is watrisher then the milke of summer, as likewise is the milk of young Cattell: it is hollsomer being sodden, specially with the Pebbles of the Sea. The Sheepe about *Pontus*, neere to the riuer *Astace*, do giue (as *Plinie* saith) blacke milke. All Milke generally (as *Dioscorides* writeth) is of good nourishment, but filleth the stomacke and the belly with winde: that which is milked in the Spring, is thinnest but looseth the belly most. The difference of Milke, is taken (as *Varro* saith) of the pastures, the nature of the cattell, and the milking. Of the pasture, when the cattell is fed with Barley, Straw, and all other hard and dry meates, and this greatly nourisheth. For purging of the Belly, the Grasse Pastures, specially where the cattell feede of purging hearbes, as *Cardamus* in his booke *de plantis* teacheth, that if you will purge Melancholy, you must feede your milch Goate, or Asse, with *Polipodi*, and for all other humours *Sene*, for the Dropsie with *Spurge*, or *Agaricke*: for clensing of the bloud, with Fumitorie, or Hoppes: and if you will not onely loose the belly with Mercury, or Mallowes: so farre *Cardamus*. Our countrymen doe chiefely commend for milke, the pastures where groweth Spery, and clauergrasse, and that is all beveckt with yellow flowres. For the Cattell, the difference is betwixt the sicke and the healthy, the young, and the old: and for the milking, that is best that is not long kept after the milking, nor that is milked immediately vppon the Caluing, a grosse vnholesome kinde of Milke. To try whether milke be mingled or not, you shall take a sharpe Rushe, and putting it into the milke, let it droppe from thence vppon your Naile, and if the drop runne abroade, it is a signe there is water in it: if it keepe together, it shewes it to be pure and good. Of Milke is made Butter, whose vse (though it be chiefely at this day among the Flemings) is yet a good and profitable foode in other countreys, and much vsed of our old Fathers, yea euen of the very Patriarches (as the scriptures witnesseth) the commoditie thereof, besides many others, is the aswaging of hunger, and the preseruing of strength: it is made

Black milke.

Error in the vnderstanding of Dioscorides

Butter.

in

in this sort. The milke, assoone as it is milked, is put out of the Paile into Bowles, or Pannes, the best are earthen Pannes, and those rather broade then deepe: this done, the second, or the third day, the creame that swims aloft is fletted off, and put into a vessell rather deepe then big, round and Cilinder fashion: although in some places they haue other kinde of Charnes low and flat, wherein with often beating and mouing vp and downe, they so shake the milke, as they seuer the thinnest part off from the thicke, which at the first, gather together in little crombles, and after with the continuance of the violent mooving, commeth to a whole wedge, or cake: thus it is taken out, and either eaten fresh, or barrelled with salt. The Buttermilke that remaineth of the Butter, is either kept for the family, or giuen to Calues and Hogges, as a dainty foode. Cheese is also made of the Milke of Cattell, the Milke being powred into a Vessell of earth, putting into it a little Rennet, the quantity of a Walnutte, in a great vessell of Milke, whereby it runneth into Curde. *Varro* doth better like the Rennet of the Leuret, or the Kidde, then the Lambes: howbeit, we commonly vse the Calues rennet: others vse sundry other meanes only with heate, warming it in Tinne vessels, and after dipping these Vessels in colde Water, which is the sweetest and cleanliest manner: others put in the seede of wilde Saffron, and being so turned, the Whaie doth greatly pourge fleame: others againe vse the milke of the Fig tree, and then doth the Whay purge both choler and fleame: some purge it with Orimell, or surrope of Viniger, which is of all other waies the hollomest: some besides, vse the little skime of Birds Guisards, and others, the flowres of wilde Thistles, or Hartichockes. The newer and better the Milke is, the better will be the Cheese: for made of two sorts of Milke, or Milke that is too neere fleeted, it soone sowreth, and wareth hard and nought, and is not to endure any while. Againe, being made of fat and new Milke, it will very long endure, and long continueth in his fatnesse and softnesse: about a two or three houres after you haue put in your Rennet, the Milke commeth to a Curd, which is straight waies put into Formes, or Cheese fattes, and pressed: or if they be but small, they are onely pressed with the hand. If they be of any quantitie, they haue great waight vpon them:

Cheese.

it is very needefull you preſſe out the Whaye with as much ſpeede as you can, and to ſeuer it from the Curd, and not to let it lie ſlowly drayning of it ſelfe. Thoſe that make great Cheeſes, haue moulds for the purpoſe, and Weights and Preſſes anſwerable. After this, they take them out of the Preſſe, and lay them vpon Herdelles, or faire ſmooth Tables, in a ſhadowy and a cold place, and cloſe from all windes, ſprinckling them all ouer with Salt, that they may ſweate out all their ſowreneſſe, laying them ſo, as they touch not one the other. When they be now well hardned and thickned, they are taken vp, and preſſed againe with great weights, and rubbed ouer with parched Salt, and after laide in preſſe againe, whereby it is thought they will neither haue eyes, nor be ouer dry: which faltes happeth to come when they be either not well preſſed, or too much ſalted. Some vſe to put into the bottome of their Pailes, the greene kernelles of the Pine apple, and milking into them, do cauſe it ſo to turne. You may alſo cauſe your Cheeſe to reliſh of whatſoeuer you will, as Pepper or any other Spice: but *Columella* counts that for the beſt Cheeſe, that hath leaſt mixture in it. The ſtrongeſt Cheeſe, and hardeſt of digeſtion, are thoſe that are made of Buffes milke: the next are ſuch as are made of the milke of Ewes, but the mildeſt, and lighteſt of digeſtion, are thoſe that are made of Goates milke: the Cheeſe that is made of Mares milke, is of the ſame quantity that the Buffe Cheeſe is. There is Cheeſe alſo made of Cammels milke, and of Aſſe milke: the Cheeſes that are made of Buffes milke, are at Rome in great eſtimation of all other cattell. Such as are touched both aboue and beneath, and haue more then foure papps, you can make no Cheeſe of their milke, for it will neuer curd. In our daies, the beſt Cheeſes are counted the Parmaſines, made about the Riuer of *Po*, eſteemed for their greatneſſe, and daintineſſe, of which you ſhall haue brought into other countreys that way aboue threeſcore pound. Next are commended the Holland Cheeſe, the Cheeſe of Normandy, and the Engliſh Cheeſe. In England, the beſt Cheeſe is the Cheſhyre, and the Shropſhire, then the Banbury Cheeſe, next the Suffolke, and the Eſſex Cheeſe, and the very worſt the Kentiſh Cheeſe. The places where the beſt Cheeſe is made, appeareth by this old engliſh *Diſtiches*, better ſenſed, then footed.

Banbury,

Banbury, Langtony, Suffolke good Cheese, Esser go thou by, Shropshire: *cum* Chesshyre, Hertford may wel with the best peere.

Of the discommodity of Esser Cheese, our English Partiall Jhon Haywood, thus merily writeth.

I neuer saw Banbury Cheese thicke enough,
But I haue seene Essex Cheese quicke enough.

Cheese they say will best endure, and is longest preserued, if you keepe them in heapes of Pulse, or Wheate, and if you steepe your Rennet in the iuice of Byrch, you shall be sure to haue neither Mite nor Creeper in your Cheese. The Cheese that is soft and new, doth more nourish then the dry, and be more comfortable to the stomack, not long in digesting: the old is contrary, according to the prouerbe. No Cheese good but the new. Old cheese will become new in tast, if you lay them in Time, Vineger, or in Wine: if through age it be hard and bitter, let it be rubbed ouer with meale of vndried barley, & then dipt in water, & after, the outer rinde scraped off. We haue oft times prooued, that hard cheese wrapped in Cloutes wet in Vineger, or Wine, and oftentimes sprinckled with wine, and so laid vp, returne to a softnesse, and a very pleasant tast. Some lay it in Leauen, couering it close therewith, and thereby make it soft. It is reported, that *Zoroastes* liued twentie yeeres in wildernesse with Cheese so ordered, as it neuer wared olde.

EVPHOR. Of the whay that commeth from the Cheese being sod with a soft fire, till the fatnesse of the Cheese swim aloft, are made Welcurdes. Wellcurds.

HEDIO. You were woont to loue them well.

EVMEVS. I do in deede, specially if there be good store of new milke put into the Whay. The old writers doe teach the making of a kinde of white meate, not much vnlike to welcurds, which they called *Melcan*, and made it in this sort. They put into a new Melcan.
earthen vessell Vineger, and suffered it to boile softly vpon the fire, till the vessell had drunk vp the vineger, and into that vessell they powred in milke, and set it where it might stand steadfast, whereby they had within a while their desire. But me thinketh I haue for my part done enough, it commeth now to your turne *EVMEVS* to go forward with the rest.

EVMEVS. That the keeping of Swine belongeth to Hus- Swyne.

handrie, doth euidently appeere by the saying of the auncient husbands, counting him a slothfull and an vnthriftie husband, that hath his Bacon rather from the Butcher, then from his owne Roofe: for there ariseth as great profit manie times to vs of our owne swine, as doth to you that be keepers of greatest cattell of your flockes: for if Bacon be away, the chiefest supporter of the Husbandmans kitchin is wanting. And whereas swines flesh seemeth abhominable to the foolish Iewes, I beleeue verely they neuer tasted the Gamonds of Fraunce, so highly commended by *Varro*, *Strabo*, *Athenæus*, and other learned writers: which I suppose were none other but the flitches of Westphaly, so greatly esteemed at this day, not onely in Germanie, but in Rome, and that they were called by the names of Celtick Gamonds, because the old writers, specially the Greeks, called all the Countreys on this side the Alpes, both French and Dutch, by the name of Celtick. Surely there is no beast besides, that makes more daintie dishes, there is in him neere fiftie different tastes, where euerie other beast hath but one, and hereof came at first the sharpe law of the Censors, forbidding it to be sled at suppers, the Vdders, the stones, the tripes, and the forepart of the heads of Swine, (as *Plinie* witnesseth.) And most apparant is it, that not onely the French, and the Dutch in those daies, but also the Italians, and the Greekes, nourished great heardes of Swyne. Among the Greekes, *Homer* maketh mention of one of my name, that had twelue Hogstyes, euery Stye containing fiftie Porklings, and *Polybius* writeth, of more then a thousand to be readie at a time among the auncient Italians, Tuskans, and French, *Varro* accounteth a hundred but a small heard. Who so will nourish Hogges, must haue regard both to the fairnesse, and the age: *Varro* addeth beside, the nature to the kinde, and the countrey. And because the young doe commonly resemble their parents, he would haue you choose such as are faire, and large bodyed, and which makes most to the matter, as fruitefull as may be: which *Varro* doth chiefely commende those that be of one colour, their bristels would be thick, hard, and black, if it be in a cold countrey: if in a temperate, you may nourish the smooth. Their proportion would be long, large sided and bellied, wide buttocked, short legged, and footed, big necked, and well brawned,

short

ſhort groined, and turning vpward, his taile wrinckled. The kind is moſt commended, that bringeth many Pigges, the countrey that breedeth large and great: the beſt age for the Boare, is a yeere old, though at halfe a yeere old they are able to ſerue a Sowe: one Boare is enough for tenne Sowes, and more. The Sow is ſufficient to bring Pigges at a yeere old, and ſo for ſeuen yeere after, the fruitfuller ſhe is, the ſooner ſhe wareth old: at the firſt farrowing, you ſhall eaſely ſee what number ſhee will bring foorth: ſhee will not much differ in the other. The beſt kind of Sowes haue twelue pappes, the common ſort tenne, or not ſo many. Euery Pigge doth know his owne Pappe that he was borne too, and ſucketh onely that, and none other: if you take away the Pigge, the pap drieth, as both *Plinie*, and experience ſheweth. They were woont to be bought and bargained for in this ſort. Doe you warrant that theſe Swine are ſound, that I ſhall well enioy them, that you will anſwere the faultes, and that they be of a healthy breede? A wet moriſh ground is meeteſt for this cattell, for he delighteth not in water, but in durt and myre, ſo much (as *Varro* writeth,) that the Woolfe, as ſoone as he hath caught a Sowe, draggeth hir to the water, becauſe his teeth are not able to abide the heat of hir fleſh. And although this beaſt will away with any ground, (for he feedeth both in mountaines, champion, and mariſh,) yet his chiefe delight is in the woodes that is full of Quagmires, where there groweth ſtore of Oke, Corke, Beech, Maſtholme, wilde Oliues, wilde Dates, Haſelnuttes, Crab trees, Plome trees, and Cherie trees: for theſe doe fruite diuers times, and feede the heards, almoſt all the whole yeere. Where there wanteth Woods, they muſt be fed from the ground, wherein a Marriſh is to be preferred before a dry ground, that they may mouſell in the Marſh, dig vp woormes, wallow in the myre, and toomble in the puddels of water, which in Sommer is moſt needfull. They alſo hunt after rootes, ſperially Fearne rootes, and the rootes of Bulruſhes, Ruſhes, and Sedges, beſide good Graſſe well feedeth a Swine, and Orchardes of Cherryes, Plomes, Apples, and Nuttes. And notwithſtanding all this the Barne, for you muſt feede them often by hand, when meate failes abroad, and therefore you muſt preſerue ſtore of Acornes, in Teſtornes in the water, or dried vpon ſmokie floores, alſo Beanes,

Peaſe,

Peaſe, and Tares muſt be giuen them, and not ſo much as Barley ſpared: for this kind of feeding doth make them faire, & not onely fattes them, but giueth the fleſh a pleaſant taſte. When they are yet yoong and ſucke, both they, and their dammes muſt be well fed, they muſt be put to feede earely in the morning afore the heat of the Sunne, and after kept in ſhadowy places, where there is good ſtoore of Water. Afore they goe to paſture, they muſt be medecined, leaſt the Gralle ſkarre them too much, by which they will be greatly weakned. In Winter they muſt not be put abroad, till the froſt be off the ground, and the yſe thawed. And though the Swine will run at the knowen voice of their Swineheard, yet *Varro* will haue them brought both to paſture, and homeward, with the ſound of a Horne: their meat muſt be giuen them ſcattered thin, ſo ſhall both leſſe ſuffice, and the greater ſhall not harme the ſmaller: as ſoone as they heare the Horne, though they be neuer ſo farre off in the woodes, they come running with all haſt. *Polybius* telleth, that the Italians vſe not to follow their heards, as the Greekes, and others doe, but going a pretie way before them, they blow their hornes, their heards being acquainted with the blaſt, doe follow them in great order. They doe ſo well know, and obey the call of the Swineheard, if we may beleeue *Alianus*, that when certaine Rouers, landing vpon the coaſt of Tuſkan, and taking great numbers of them out of their ſties, caried them abooarde, the theeues hauing weied vp their anker, and being vnder ſaile, the Swine vpon the hearing of their keepers voice, ſuddenly ran to the one ſide of the ſhip, and ouerturned hir, whereby (the Pirates drowned,) the Swine came ſafe to land to their maſters. As I haue here told you of the conditions of the Boare and the Sowe, and of their keeping, ſo will I now ſhew you the maner of their breeding. The breeming time is reckoned to be from Winter, till the twelfth of March, ſo ſhall you haue them to farrow in Sommer: for the Sow going foure monethes with pigge, farroweth in the fifth. She is with pigge at the firſt breeming, but they vſe to let them goe often to boare, becauſe they ſoone miſcarrie. And if you will haue two farrowes in one yeere, you muſt put your Sowe to Boare in Februarie, or Januarie, that ſhe may farrow by Aprill, or May, when as there is good paſture abroad, and Milke is in his chiefe ſtrength:

A woonderful knowledge in Swine.

and

and when they be weaned, they may well feede vpon ſtraw, and grottens, and after the Sowe may farrow againe in the ende of *Autumne*: for *Varro* ſaith, hir farrowing times are ſo diuided for the nonce, as ſhee may farrow twiſe a yeere, while ſhe hath foure monethes to beare them, and two to feede them. As ſoone as they be with pigge, you muſt keepe the Boare from them: for with his vnrulineſſe, he maketh them to caſt. Young Swine for breede, muſt not be leſſe then a yeere old, as *Varro* would haue it: howbeit they begin at eight monethes, and continue ſeauen yeeres. The Boare beginneth at eight monethes, or ſire, and continueth well foure yeeres, and after at three or foure yeeres old, you may geld them, and fatte them. Some would not haue you keepe vp aboue eight, others not aboue ſire: not that the Sowe is able to keepe no more, but that ſhe that keepeth more, ſoone faileth. *Varro* reporteth, that the Sowe of *Aeneas Lauinus*, farrowed at one time thirtie white pigges: but it is monſtrous when ſhe farroweth more then ſhe hath papps. Euery Sowe muſt haue hir ſtie by hir ſelfe when ſhe hath farrowed, and not ſuffered to goe with the whole heard, as other cattell are, but little Cotes to be made for them, wherein they may be kept either farrowing, or with farrow: for Swine, if they lie together in any number, being commonly ill manered, doe lie one vpon an other, whereby they hurt ſuch as are with Pigge. And therefore you muſt haue ſeuerall ſties where they may farrow, and made hie, that the Sowe can not get out: for couered they muſt not be by no meanes, that the Swineheard may looke that the Sowe ouerlay none of them, and to ſee what they want, that he may make it cleane, and as oft as he cleanſeth it, he muſt ſtrawe ſand, or ſuch like, to drie vp the moiſture: for though ſhe be but a ſwiniſh creature, yet loueth ſhe to haue her chamber cleane. When ſhe hath farrowed, ſhe requireth greater quantity of meat, whereby ſhe may giue the more milke, ſpecially Barley ſteeped in water, or ground & tempered with water. And if you haue not good ſtore of meat, your beſt is to ſell the pigges: ſo ſhall the damme being deliuered of hir burden, be ſooner with farrow again. Such as are farrowed in Winter, are commonly poore & wretched, both becauſe of the cold, and that their dammes do not like them for wanting of milke, and biting their paps. If the Sowe eate hir

pigges,

pigges, it is no wonder, for Swine of all other beastes, can woorst away with hunger, which when it prouoketh, they eate not onely their owne, but yoong children, which not long since happened in Suffex, to the pittifull discomfort of the parent. They suffer not the Sowe to goe abroad in tenne dayes after hir farrowing, except it be to drinke: after, they suffer hir to goe about the house, that she may the better giue milke. When the Pigges were great, they desire to goe abroad with their dammes, at which time they are fedde by them selues apart, to the end they may the sooner forget their Mother: which they will doe in tenne daies. It behoueth the Swineheard to be carefull and diligent about his charge, that he haue in memory euery one of them, both olde and yoong, that he consider euery farrow, and shut vp those that be great with Pigge, that they may farrow in their Stie. He must haue speciall regard of euery yoong Pigge, that euery one of them be brought vp vnder their owne damme: for if they get out of the stie, they straightwaies mingle one company with an other, wherby the poore Sowe is forced to giue milke many times, to more Pigges then hir owne: and therefore the Swineheard must shut vp euery damme with hir owne Pigges. And if his memory serue not to know them all, let him pitch euery Sowe and hir Pigges with a seuerall marke: for in a great number it shall behooue him so to doe, for confounding his memory. The old husbands obserued alwaies two times in the yeere for cutting of them, the Spring, and the fall of the leafe, whereby they auoided the danger, both of the heat and cold. The Boare Pigges they cut when they were fiue monethes old, and againe at foure yeere old, to make them fat, making two woundes, and taking out the stone of euery side: or els when you haue taken out one stone, you must thrust your knife againe into the wounde, and cutting a sunder the skinne betwixt both the stones, draw out with your fingers the other, so shall you make but one skarre: but this kind of cutting is somewhat more dangerous. The Sowes are spaide by burning the Matrix with an iron, and the skarre healed vp, whereby they will both haue no more pigges, and be the fatter. *Aristotle*, and following him *Plinie*, would haue the Sowe after two daies fasting, hanged vp by the forelegs, and so cut, whereby she will be the sooner fat: but I iudge it better to

A child eaten by a Sowe.

cutte

cutte them when they be yoong, at two monethes old, or yoonger, for so are they in least ieopardy. After they be cut, you must keepe them from drinke, and giue them but little meate: the wonnd must be annointed with fresh Butter, and sowed vp. As the writhling and turning vp of the taile, is a signe of a sound Hogge, so be there certaine and assured signes of their sicknesse: for if you plucke off the bristles from the backe, and finde that their rootes haue blood in them, it shewes the Swine is not well. Besides if your Hogges be sicke, or taken with a feuer, they hang their heads a tone side, and suddenly as they run abroad they staye, and being taken with a turning giddinesse, they fall downe: and therefore you must marke well on which side they hang their heades, that you may cut the eare of the contrary side to let them blood: and vnder the taile beside, two inches from the rumpe, you shall strike the vaine, which there is easily to be seene, for the bignesse of it: you must first beat it with a little sticke, and after it swelleth with the beating, open it with your knife, and hauing bled sufficiently, bind it vp with the rinde of Willow, or Elme: after this keepe them vp in the house a day or two, and giue them warme water, with a good quantity of Barly flowre. If the *Quinsey* or *Vuula*, (to which disease this beast is woonderous subiect) chaunce to take them, *Dydimus* would haue you let them blood behinde aboue the shoulders, others vnder their toong, some againe cure them with settering. If the kernels swell in the throat, you must let them blood vnder the toong, and when they haue bledde, rub their mouthes within with Salt, finely beaten, and Wheat flowre, *Democritus* would haue you giue to euery Sowe, three pound weight of the beaten Roote of Daffadill. If they vomite and loath their meate, it is good to giue them before they goe abroad, the shauings of Iuory, fryed with Salt, and ground Beanes. Swine while they feede abroad, by reason of their great deuouring (for it is an vnsatiable beast) do woonderoully labour with the abundance of the Spleen: for remedie whereof, you shall giue them water as oft as they thirst, in Troughes made of Tamarice, the iuice of which wood, is very holesome for them. *Democritus* teacheth to giue vnto Hogges that haue the Spleen, the water wherein the Coales of Heath hath been quenched. This beast hath sometime a sicknesse wherein he pines away,

Of diseases in Swine, and the cure.

The Quinsey.

away, and forſaketh his meat: and if you bring him to the feeld, he ſuddenly falleth downe, and lieth as it were in a dead ſleepe: which as ſoone as you perceiue, you ſhall ſhut vp the whole heard in ſome houſe, and make them to faſt one day, both from water and meat: the next day, the roote of the wilde Coucumber ſtamped and ſtrained with water, is giuen them to drinke: which as ſoone as they haue taken, they fall a vomiting, and ſo purge them ſelues. When they haue thus expelled their choler, you ſhall giue them barde Beanes, ſtrained with Wine. An excellent medicine againſt all peſtilence of Swine, both *Hieronimus Tragus* teach, which is when you ſee them infected, to giue them the Rootes of *Polipodi*, or Oke Ferne boiled in Wine, whereby they ſhall purge whatſoeuer is euill from them, and moſt of all choler, wherewith Swine are moſt troubled: the ſame *Hieronimus* (as I remember) teacheth for a horſe (though it be without my commiſſion to meddle with them.) If he be ſicke, and ſuddenly fall downe of a diſeaſe that you know not, to put vnder his toong a peece of a Ferne roote, whereupon you ſhall ſee him immediatly voide vpward and downeward whatſoeuer is in his bodie, and preſently amende: this hee ſaith (and truely I dare beleeue him) that he prooued with a horſe of his owne. But to my Swine, whereas thirſt in Sommer, is hurtfull and dangerous to all kind of cattell, to this beaſt it is moſt hurtfull, and therefore you muſt not water them as you doe Sheepe and Goates, but twiſe, or thriſe a day: but if you can, you muſt keepe them by the water ſide, that they may goe thereto at pleaſure: for the Swine is not content with drinking, but he muſt often coole and plonge his filthy panch in the water, neither delighteth he in any thing ſo much, as to wallow in the durt. And if you haue no ſuch place neere, you muſt draw ſome water from the well, and giue it them in Troughes aboundantly: for except they drinke their fill, they will fall ſicke of the Loonges, which diſeaſe is cured (as *Columella* writeth) by thruſting the Root of Setterwoort through their eares: *Plinie* affirmeth the Dove to be a preſent remedie for the ſickneſſe of Swine. Some ſay, that if a Sowe loſe one of hir eies, ſhee dieth ſoone after: otherwiſe ſhee liueth fifteene yeeres. There is a kind of diſeaſe amongeſt Swine, (though otherwiſe they be healthy and fatte) wherein their fleſh is all infected

with

with little graines as bigge as Peason: the Greekes call them *Galazoi*, and we at this day measled Swine, which you shall soone perceiue by the sight of the tongue, and the hoarsnesse of their voice: this disease they say, is naturally vnto them, from which you shall perceiue them, if you naile certaine plates of lead in the bottome of their Trough. You shall also keepe them from this disease, if you giue them to drinke, the Roote of Bryony: the generall and common remedy, is Alome, Brimstone, and Bay berries, of each a like: adde thereunto a handfull of Soote, beate them all together, and put them in a Bagge, which bagge you shall cast into their water when they drinke, and renew it twise in the yeere. Measled swine.

EVPHOR. I pray you *EVMEVS* do not dissemble, but tell vs truely how you doo to haue your Hogges so fatte, I beleeue you are in the Barne sometime when you should not bee.

EVMEVS. What meanes so euer I vse in ordering my flocke, is not to my Masters losse, no more then is your diligence, whereby you bring your cattell to be so faire. I told you before, that he was an vnthrifty husband that had his Bacon from the shambles, and not of his owne prouision: and besides, my Masters the Philitions giue great commendations to Hoggs flesh, in that it hath such a neerenesse and agreement with our bodies, neither is there (as I said before) a beast that makes more dishes. And therefore it is greatly for profit, to haue the husbandmans kitchen well stored with Bacon, wherewith he may sustaine his household all the whole yeere. You shall easily (though woods be wanting) find Barnes, Marshes, and Corne feeldes to feede them with. They will be fatte (as *Plinie* supposeth) in threescore daies, specially if they be kept from meate three daies before you feede them: they are fatted with Barley, Oates, or other Corne, or Pulse, either giuen whole, or ground, but of all others, best with Mast: and that flesh is better, & of more substance that is feede with Acornes, then that which is fatted with either Beech mast, or Chestnut. This beast will in time be so fatte, as he will be able neither to goe, nor stand. Yea *Varro* tels that there was seene in *Arcadia* a Sow so fatte, that she was not onely vnable to rise, but suffered a Mouse to make a nest in hir body, & to lay hir young there. The same *Varro* reporteth, that ther was sent to *Volumius* a Senator in Rome, a peece of

of Porke of two ribs that weighed three and twentie pound: the thicknesse of which Sowe from the skinne to the ribbe, was one foote and three inches. Your best is to put to fatting your Swine of two or three yeeres old: for if they be yoonger, their growing will hinder their feeding. To keepe your Bacon any long time, you must vse great diligence in the salting, and dryying of it, whereby you shall haue it both the holsomer, and sweeter, and besides to continue diuers yeeres to serue the turne, if scarsitie happen. Your Hogge being in this sort fatted, you must shut vp, and not suffer him to drinke the day before you kill him, whereby the flesh will be the drier. When you haue thus after his thirst killed him, you shal either skald him with water, or with a flame made with strawe, or stickes, syndge him: for the manner of such as flea him, I like not. After that, hanging him vp by the heeles, you shall pluck out his bowels, and put them to dressing: his flesh being cold, and hard, you shall lay vpon a table, and cutting out the Head, the Gammon, and the Fleetches, pouder them with salt, thrusting great store thereof in euery place, specially where the bones bee: that done, put it into your poudring tubbe, stroking salt enough vnder it: some would haue you salt it in the wane of the Moone. Before you pouder it, you must presse and dry out all the blood, and the water. Some before they salt it, doe plucke out the bones, thinking it the best way for preseruing it, and to keepe it longest sweete. Others againe doe not straight waies put it into the poudring tubbe, but doe leaue it vpon a Table for tenne daies after, and then hang it vp in a pure aire, to dry in the larde. And when it hath been dried in the winde certaine daies, by little and little, they let the smoke come to it, and afterwards more abundantly. The Bacon will be the sweeter, if beside the smoke, the winde may come to it: if you hang it in great smoke at the first, it will be rusty. *Dydimus* saith, that the Bacon will long continue sweete, if after the dressing, cooling, and dryying, it be hanged vp in shadowy and moist places, rather toward the North, then toward the South, and that it will be sweeter, if it be couered with Snowe, and Chaffe: the Tubbes that you pouder in, must be such as haue had Oyle in, rather then those that haue had Vineger. Although I haue before spoken of the worthinesse and antiquitie of Shepheards, and Heardsmen

Of Shepheards.

yet,

yet muſt I here ſay, that it is in vaine to meddle with the ordering and keeping of cattell, except you haue handſome, and ſkilfull men that may take the charge. For the knowledge of keeping of cattell hath a diſcipline, wherein a man muſt from his very Childhood be brought vp: and ſurely it is meete that the huſband, or Bayliffe, haue ben brought vp, or trained in all theſe trades, and to come by degrees to his maſters prize: As from a ſwineheard, to a ſheepheard, from a ſheepheard, to a Neatheard &c. And moſt true it proueth in this that commeth to paſſe in all other gouernments, that ſuch are beſt able to take charge of gouernment, that paſſing by degrees and offices, haue from being vnder gouernment, come to gouerne them ſelues: for though (where the flocke is but ſmall, and feeding not farre off, is brought home euery day) Children and young folkes, are able to ſerue the turne: yet where the flockes be great, and muſt be kept night and day in Foreſtes, and wilde feeldes (as I ſaid before) of the flockes that wintred in *Appulia*, and ſommered in the Mountaines of *Kiete*, here I ſay the ſheepheards muſt both be men of luſty age, ſtrength, and diligence, as alſo ſkilfull in that belongeth to their office: for neither old men, nor children, are able to endure the hardneſſe of climing the hilles, nor the ſharpeneſſe of the cold Mountaines, which they muſt alwaies doe that followe their flocke, ſpecially they that keepe Bullockes and Goates, that delight to feede vpon Rockes, and Cliues. You ſhall ſee on the Mountaines of Swycherland, great and goodly fellowes furniſhed in warlike maner to follow their heards and flockes, and to lodge in the wilde deſartes, farre from the company of men, and there alſo to make both Butter and Cheeſe: wherefore ſuch as are meete to take charge in theſe places, muſt be light, ſwift, and well limmed, and not only well able to follow their flockes, but if neede be to defend them from wilde and rauening beaſts, to lift great burdens, to follow the chaſe, and to be good archers: in fine, ſuch a one as *Homer* doth make his *EVMEVS* to be. And therefore the old huſbands in hiring of a ſhepeheard, did alwaies couenant among others, that he ſhould be ſound of body and limme, and free from filching and theft. In *Sclauony*, the heardſmen do vſe to haue their Wiues abroad with them, as companions of their iourney to dreſſe their meate, and ſuch things as

they neede: such things as are for the health of his beastes, the shepheard must haue alwaies in a readines. *Varro* would haue him both for this purpose, and for the better order of his recknings with his master, to write and reade. Of the number of the heardsmen, how many euery flocke ought to haue, is to be measured by the Countrey, and kinde of the Cattell. The same *Varro* alloweth for euery fourescore Goates one shepeheard, which *Atticus* alloweth to a hundred, to euery fiftie Mares two men: in our Country one shepeheard suffiseth for a hundred, or two hundred sheepe, yea many times for three hundred, and aboue, specially where they be euery day brought home. One Swineheard wil keepe twenty, or thirtie Hogs, or more, if the ground be thereafter, the like for Bullockes, and Kine. For Horses we seldome haue Heardsmen, but euery man keepeth them at home either in stables, or pastures, not commonly exceeding the number of twenty. In what order you shall feede your Cattell, either in Sommer or in Winter, and when towards the South, and when to the West, I haue told you before. The Dogge (though the Lawyer alloweth him not in the number of Cattell) and though he yeelds of himselfe no profite, yet is he as the shepeheard (for his trustines, and watching of the flocke) to be esteemed, and set by: for they haue beene seene to fight in the defence and quarell of their master. Yea diuers of them haue beene knowen after their masters death, vppon great affection and loue, to famish themselues, whereupon the price of good Dogges grew to be very great. It is written, that *Alcibiades* gaue for one Dog eight score poundes. There is not a more necessary creature, then the Dog about Husbandry: for beside his singuler faithfulnesse and watching in the night time, he is also a quarter master in keeping of Cattell; and verie needefull for the defence of them specially Sheepe and Goates, which would be soone destroied by Woolfes, Fores, Grayes, and other vermine, if Dogges were not set to be their keepers. Swine feeding in heardes, if the wilde beastes inuade them, making as it were a *larum* with their grunting and crying, assemble themselues in their owne defence. The greater Cattell defend themselues soone with their heeles, some with their Hornes, onely the poore Sheepe hath no Souldier but the Dog. Of Dogges that serue for profite, there are but three sortes: for

Dogges.

of

of the fourth (which are but for pleasures) I make no account. One of the sortes, is such as by sent, or swiftnesse serue for the chase, and killing of wilde beasts: these, what maner of ones they should be, and how they should be ordered, *Xenophon* and *Oppianus*, in their *Cynigetickes* haue taught, and I in my last booke, where I shall speake of hunting, will declare. But now I will onely speake of Dogges for the husbands, and keepers both of the house and the Cattell: and first of the Mastie that keepeth the house: for this purpose you must prouide you such a one, as hath a large and a mightie bodie, a great and a shrill voice, that both with his barking he may discouer, and with his sight dismay the Theefe, yea being not seene, with the horror of his voice, put him to flight. His stature must neither be long, nor short, but well sette, his head great, his eyes sharpe, and fierie, either browne or graie, his lippes blackish, neither turning vp, nor hanging too much downe, his mouth blacke and wide, his neather iawe fatte, and comming out of it of either side a fang, appearing more outward then his other teeth, his vpper teeth euen with his neather, not hanging too much ouer, sharp, and hidden with his lippes, his countenance like a Lion, his breast great, and shaghaird, his shoulders broade, his legges big, his taile short, his feete verie great, his disposition must neither be too gentle, nor too curst, that he neither fawne vpon a theefe, nor flee vpon his friends, very waking, no gadder abroade, nor lauish of his mouth, barking without cause, neither maketh it any matter though he be not swift: for he is but to fight at home, and to giue warning of the enimie. The Dogge that is for the folde, must neither be so gaunt nor so swift as the Grayhound, nor so fatte nor heauy as the Mastie of the house, but very strong, and able to fight and follow the chase, that he may be able to beate away the Woolfe or other beasts, and to follow the theefe and recouer the praye, and therefore his body would rather be long, then short and thick: in all other points he must agree with the Bandogge. Touching the kinde, the Dogge is thought better then the Bitch, because of the trouble she bringeth when she is sawte: howbeit, the spaide Bitches doe bite sorest, and are more waking. For their age, they must neither be whelpes, nor too olde: for the whelpe can neither defend himselfe, nor the flocke, where as

The Bandog for the house.

The Shepeherds Mastie.

yet the olde hath some vse about a house. If you haue a whelp (which age is better to be trained, either for the house or the folde) you shall perceiue by his foote whether he will be great or no. His head must be great, smooth, and full of vaines, his eares great, and hanging, his iointes long, his forelegges shorter then his hinder, but very straight and great, his clawes wide, his nailes hard, his heele neither fleshy nor too hard, the ridge of his backe not too much appearing, nor crooked, his ribs round and well knitte, his shoulder pointes well distant, his buttockes fatte, and broade, and in all other parts (as I sayd) of the Bandogge before. For his colour it maketh no great matter, though *Varro* would haue him white, and so would *Columella* the Dogge for the field, as he would haue the house Dogge to be black: but the pied colour is iudged naught in them both. The white they commend, because he may be discerned from the Woolfe in the night, whereby they shall not strike the Dogge in stead of the Woolfe. The black againe for the house, is best commended, because of his terror to the theefe in the day, and the hurt that he may doe by night, by reason of his not being seene: the dunne, the branded, and the redde, doe not mislike me, so they be well marked beside. Thus must you iudging him as a Lion by the claw, either buy one, or bring vp one for your purpose. How much teaching, or bringing vp preuaileth, appeareth by *Lycurgus* his example in *Xenophon*. To make them fierce and curst, you must pluck them by the eares, set them together with your handes, and keepe them from being hurt, so shall you haue them the bolder, and the fierrer, and such as will neuer giue it ouer. You must vse him first to the chaine, by tying him to a clogge, letting him drawe it awhile by his necke, and when you haue a little space vsed him in this sort, then may you either leade him, or tie him: it is best to keepe them tied in the day time, to make them the curster, and to let them loose in the night time: so shall they in the night time watch, and in the day sleepe. To arme them against the Woolfe, or other wilde beastes, you may put broade collers about their Neckes full of Nailes, and iron studdes, lining it with soft leather within. You must looke that your Dogges be of a good kinde, and (if you can) all of one kinde, so shal they stick the better together: choose them that haue the curstest Dammes,

and

and ſuch as haue their Pappes euen. They begin to litter at a yeere old, and continue nine yeeres, after tenne they be woorth nothing. The Dogge (as *Columella* ſayth) gettes whelpes luſtily, till he be tenne yeeres old: the whelpes of old Curres, are ſlowe, and naught. *Homer* ſeemeth to make the life of a Dogge aboue twenty yeeres, where he ſpeaketh of the comming home of *Vliſſes*, and the knowledge of his Dogge: And I my ſelfe haue ſeene Dogges that were ſayde to be ſo much, but altogether vnprofitable. Their age may be knowen by their teeth, the young hauing (as *Ariſtotle* ſayth) white teeth and ſharpe: the old, blacke and blunt. In the Spring they begin to be lawte, and go with whelpe (as *Ariſtotle* and *Xenophon* ſayth) threeſcore dayes, or at the moſt threeſcore and three. *Varro* writeth, that they go three monethes with young: the Dogges of *Lacedemon* ingender at eight monethes olde, and all other Dogges alſo at halfe a yeere: they are with whelpe at once limping: they litter about June: when they be littered, they are blinde, and the more milke they haue, the longer it is before they ſee, but neuer longer then one and twenty dayes, nor ſooner then ſeauen dayes. Some holde opinion, that if there be but one at a litter it will ſee the ninth day, if two the tenth day, and ſo a day added for as many as be, and that thoſe that be of the firſt litter, doe ſooneſt ſee: the beſt of the litter, is that which laſt ſeeth, or which the Bitche firſt carrieth to hir Kennell. As ſoone as they be Whelped, caſt away ſuch as you millike: of ſeuen, keepe three or foure: of three, two: while they be young, at the firſt they muſt be ſuffered to play with the damme, that they may growe the better, afterward, let them be taught, and tied (as I tolde you) tying them in the day, and letting them looſe in the night, and ſuch as you knowe to be of a good kind, and would haue them prooue well, ſuffer them not to ſucke a ſtrange damme: for the milke and bloud of the mother, is of great force to the goodneſſe and growth of the Whelpe. And if ſo be the Bitche lacke milke, ſuckle them with the milke of a Goate, till they be foure monethes old. Lay vnderneath them in their Kennels Strawe and Chaffe, that they may lye warme: for they cannot well away with cold. You muſt cut the tailes of the Whelpes

when they be sixe weekes old, in this maner, there is a sinnowe that runnes from the ridge of his backe, to the tippe of the taile, which being held fast with a pincer, and a little drawne out, you shall cut asunder, whereby neither the Taile shall growe to any foule length, nor the Dogge shall at any time after (as they say) be madde. They are thought to lift vp the legge when they pisse, at sixe monethes olde, which is a signe of the perfectnesse of their strength. The feeding of both kindes is all one, they may be fed with bones, porredge, and such like: in any wise let them want no meate, for if they doe, they will for hunger rauen abroad, and forsake both the house, and the flocke. *Xenophon* would haue you giue them milke all the yeere long, and such foode as they shall feede with all their life time, and no other thing: if you feede them too full, it will breede (as he saith) diseases in their legges, and rotte them within. Bread is their common meate, but *Varro* woulde haue it giuen either with Milke or Whay, by vse whereof, they will neuer forsake their Cattell. You may giue them beside, breade, with the broth of sodden bones, and the bones themselues broosed, which will make their teeth the sounder, and their mouthes and iawes wider, and they will be the keener, by reason of the sweetnesse of the Marrowe. You must beware they eate no dead Sheepe least by reason of the taste, they fall to the liue ones. While the Bitch hath Whelpes, you must feede hir rather with Barley bread, then wheaten bread: for they prosper better with it, and makes them giue more milke. You must feede them thrise a day, in the morning when you tye them vp, at noone, and againe at night, when you let them loose. Their names that you giue them, must be short, that they may soone heare when they be called. The Greekes, and the Latins, gaue them names of two sillables, the Germanes lightly but one sillable, as Ball, Slut, Patch, Grim, &c. Although *Columella* would not haue their names vnder two sillables, shewing for example the names of Dogs among the Greekes, and the Latines, as σκύλαξ, ἄκτη, ἄλκα, λάκων, and *Lupa, Tigris, Cerua*: *Xenophon* reckoneth vp thousands all for the most part of two sillables. The diseases and greeuances of Dogges, are the biting of Flies, Tickes, and Manginesse. Against this you must

Fit names for Dogges.

wash

wash them when they be Whelpes, with bitter Almondes stamped, and strained with water, washing them both about their Eares, and betwixt their Clawes, that neither Flies sticke to them and blister them, nor Ticks, or Lice molest them: and if they be alredie mangie, you must annoint them with Tarre, and Hogges grease: the Tickes also, if you touch them with this medicine, will presently fall off, for you must not plucke them off by force. If your Dog be full of Fleas, the remedy is Cummin beaten, with a like quantitie of neesing pouder, and mingled with water, rub him ouer with it, or the olde dregges of Oyle rubbed ouer all his bodie. If he be scabby, take *Cythisus*, and *Sesamum*, beate them together, and mingling them with Tarre, annoint the sore: this medecine will also remedie a Christian creature. They say also, that if you thrust the skin through with an iron, it will heale the manginelle, or if you smeare them ouer with Gunpouder, or cast them into a Tanners fatte.

Aristotle writeth, that Dogges are chiefely troubled with three diseases, Madnelle, Quinsey, and the Gout, and whatsoeuer he byteth in his madnelle, becommeth also mad, and dieth thereof: the madnelle is most extreame in the Dogge dayes: whatsoeuer is bitten by them, falleth straightwayes into a loathing, and feare of Water. To preserue them from it, you must mingle with their meate for thirtie dayes together, or if they be alreadie infected, giue them neesing pouder to eate. *Plinie* writeth, that there is in the toong of Dogges a little woorme, called of the Greekes *Lyrta*, which if it be taken out while they be whelps, they will neither be madde, nor greedie, or rauenous. If the Dogge be madde, he refuseth both meate, and drinke, and driueleth ilfauoured fomie matter, both from his nose, and mouth, he looketh with a lothsome countenaunce, his bodie is leane, and more clong together then it was woont to be, he beareth his taile betwixt his legges, and biteth without any barking whatsoeuer he meetes, falling as well vpon men, as beasts, making no difference betwixt his friendes, and strangers. As the Dog is a watchman and keeper of the house and the flocke, so the Cat is also a houshold seruant to be cherished. Mad Dogges.

Cattes. The Egyptians for their profitablenesse, did worship for their god a golden Catte, for whereas Rats and Mise, as well in Cities, as in Granges, are greatly hurtfull, wee keepe vp Cattes for the auoyding of the mischiefe, neither is there a speedier remedie. The Catte is a beast of nature enimy to the Mouse, watching in the night, and sleeping in the day, stealing suddenly and swiftly vpon the Mouse: she seeth better by night, then by day (as *Alexander Aphrodiseus* writeth) hir eyes shine and glister in the darke. They goe a Catterwalling about Februarie, and other times in the yeere (for they often ingender) and bring foorth their young ones blinde, as the Bitch doth. *Herodotus* saith, that after the Catte hath kitned, she commeth no more at the Buck, which when he perceiueth, and cannot haue his purpose, he killeth the young, whereof when she seeth hir selfe bereft, for very desire of young (whereof this kinde is most desirous) she commeth straight to the Buck. For my part I would rather counsell you to destroy your Rattes and Mise with Traps, Banes, or Weesels: for besides the sluttishnesse and lothsomnesse of the Catte (you knowe what she layes in the malt heape) she is most dangerous and pernitious among children, as I my selfe haue had good experience.

Soli deo honor & Gloria.

The ende of the third booke.

The fourth Booke, entreating of *Poultrie, Foule, Fiſh, and Bees.*

PVLLARIVS. *CHENOBOSCVS.*
MELISSEVS. *PISCINARIVS.*

PVLLA.

AS keeping and breeding of Cattell, doth yeeld no ſmall commoditie and gaines to the huſband, ſo the nouriſhing and maintenaunce of Poultrie, Foule, Bees, and Fiſh (if the countrey be for it) doth commonly ariſe to hys great aduauntage, whereby both the reuenue is greatly encreaſed, and the table daily with daincy, and no chargeable diſhes furniſhed. Cages, and houſes for Byrds, wherein were kept all maner and ſortes of Foule, were firſt deuiſed by *M. Lelius Strabo* at *Brundiſium*, from which time it was firſt put in vſe, to peu vp ſuch creatures, as naturally were accuſtomed to flie at their libertie in the aire. At which time alſo began to be brought in ſtrange and outlandiſh Foules, the keeping and breeding whereof, yeeldeth to the huſband both pleaſure and profite. We haue here brought in *PVLLARIVS*, *CHENOBOSCVS*, *MELISSEVS*, and *PISCINARIVS*, euery one of them ſeuerally entreating of ſuch things as belongeth to his charge.

MELISSEVS. I ſee you haue heere (*PVLLARIVS*) great ſtore of Foule, and Poultrie, and I beleeue verily, the profite and commoditie of them will not quite halfe the charges they put you to.

PVLLARIVS. Yes verily they quite your coſt, whether you ſell them, or keepe them for the Kitchin. It is ſaid, that *Aulus Lurco* made yeerely of his Poultrie, and Foule, fiue hundred pound.

MELLESSEVS. But I doe a great deale better like the common

common Poultrie, that wee keepe about our houses.

PVLLARIVS. Wee haue also of the same heere at home with vs.

MEL. Then let mee vnderstand (I pray) in what order you keepe them, for heerein you seeme to be most skilfull.

PVLLARIVS. It is meete that euery one be skilfull in that trade that he professeth. If you will, I will not refuse to shew you that little cunning that I haue: so you on the other side vouchsafe to shew mee the ordering of your Bees.

MELLISSEVS. I will not stick with you for that, to tell you the best I can.

PVLLARIVS. Well then with a good will I declare vnto you my knowledge, beginning first with those kindes that are most in vse: for amongst all other household Poultrie, the cheefe place is due to the Cocke and the Henne, that are beside so common, as the poorest widdow in the countrey is able to keepe them. In this Bird there are three points of naturall affection cheefely to bee woondred at. The first, the great carefulnesse that they haue during the time of their sitting, wherein for the desire of hatching their yoong, they seeme to be carelesse of either meate or drinke. Secondly, that they beare such loue to them, that they stick not to hazard their owne liues in the defence of them. And thirdly, that in the stormе, great cold, or sicknesse, they preserue and nourish them vnder their winges, not making for the while any account of their owne selues. There is heereof a most sweet comparison in the Gospel, wherein our Sauiour CHRIST compareth himselfe to the Henne that gathereth hir Chickins vnder hir winges. And therefore, since these are common for euery man to haue, and that they alwaies feede about the house, I thinke it best to begin with them, and to tell you which are best to be liked, which to be brought vp, and which to be fatted. First, the best to be brought for broode, are the dunne, the redde, the yellow, and the blacke, the white are not to be medled with, because they are commonly tender, and prosper not, neither are they besides fruitfull, and are alwaies the fairest marke in a Hauke, or a Vultards eie. Let therefore your Henne be of a good colour, hauing a large bodie, and brest, a great head, with a straight red and dubble comme, white eares and great,

The choise of Hennes for brood.

hir

hir tallonts euen. The best kind (as *Columella* saith) are such as haue fiue clawes, so that they be free from spurres: for such as weare those Cockish weapons are not good for broode, and disdaine the company of the Cocke, and lay but seldome, and when they sitte, with their vnruly spurres they breake their egges. The little Pullets, or Hennes, though the old age, both for their vnfruitfulnesse, and other causes disalowed them, yet in many places they proue to be good, and lay many Egges. In England at this day, they are vsed as a dainty dish at mens tables. In the choise of your Cockes, you must prouide such as will treade lustily, of colours, as I told you for the Hennes, and the like number of tallons, and like in many other poinctes, but of a stature they must be hier, carrying their heads straight vp, their Combes must be ruddy and hie, and hanging, not falling downe, their eyes blacke and sharpe, their Billes short and crooked, their eares great and white, their wattels oryent, hauing vnder them as it were a kind of grayish beard, the Becke feathers of colours diuers, either a pale golden, or a glistering greene, which must hang rusling from his Necke, to his shoulders, their Brestes must be large, and well brawned, their Winges well feathered and large, their Tailes dubbled and flagging, their rumpes and thyes full of feathers, their legges strong, well armed with sharpe and deadly Spurres: Their disposition (for you shall not neede to haue them great fighters) would be gentle, quicke, and liuely, and specially good wakers, and crowers: for it is a Byrd that well aporcioneth both the night and the day, and (as *Prudentius* witnesseth) exhorteth to repentance. Neither must you on the other side, haue him a Craddon, for he must sometime stand in the defence of his wife, and his children, and haue stomacke to kill or beate away a snake, or any such hurtful vermine: but if he be quarrellous, you shall haue no rule with him, for fighting and beating his fellowes, not suffering them to treade, though he haue more then his handes full him selfe. This mischiefe you may easily preuent, with shackling him with a shoe sole: for although such lusty fighters are bred vp and cherished for the game, yet are they not to serue the Husbands turne at home. A Cocke framed and proporcioned after this sort, shall haue fiue or sixe Hennes going with him. The choise of Cockes.

MELLIS.

MELLIS. I pray you let me vnderstand what time of the yeere is best for bringing foorth of Chickins?

PVLLA. In some places, specially the hottest Countries, the Hennes begin to lay in January, in colder countries, either in February, or at the latter end of January: you must also further their laying, by giuing them meates for the purpose, as Barley half sodde, which maketh both the Egges the fayrer, and causeth them to lay the oftner. Some think it good to mingle therewith the leaues, or the seedes of *Cytisus*, which both are thought to be greatly of force in making them fruitfull. If this be not to be had, you may supply the want with *Spery*, or (as *Cardanus* saith) with Hempseede, which will cause them to lay all the Winter. When they lay, you must see that their nestes be very cleane, and kept still with fresh cleane straw: for otherwise they will be full of fleas, and other vermine, which will not suffer the Henne to be quiet, wherby the Egges doe not hatch euen together, or many times ware adle and rotten. The Egges that you set vnder them, must be newe laide, howbeit, so they be not aboue tenne daies olde, it maketh no great matter: if you looke not to them, they will straight waies sit after their first laying, which you must not suffer, for the yoong Pullets, are better for laying then sitting: the desire of sitting is restrained, by thrusting a feather through their nose. The old Hennes must rather be suffered to sit, then the yoonger, because of their experience. Herein must you haue a speciall regard to know which be best to sit, for some be better to bring vp Chickins, then to sit. Others againe will breake, or eate vp both their owne Egges, and their fellowes Egges: such you must put a side, and if their nailes and billes be sharpe, rather imploy them in brooding, then in sitting. *Democritus* telleth, that Chickins may bee brought foorth without setting vnder the Henne, if so be the doung of Hennes, sifted very fine, be put in little bagges, basted about with soft feathers, vpon which the Egges must be laid straight vpright, with the sharpe end vpward: vpon these againe must the like quantitie of Hennes doung be laide, so that they be of euery side closely couered. This doon, you must suffer them to lie for the two or three first daies, and after, euery day turne them, taking good heede, that you knock them not one against the other in the turning.

After

After twentie dayes, you shall find the egges broken: and therefore the twentieth day, plucked away the shels, and taking out the Chickin, you may commit them to the Henne. It is written, that Chickins haue been hatched by the continuall warmeth of a womans bosome: beside it hath been seen, that Egges being laide in an Ouen, or a warme place, couered well with strawe and chaffe, hauing a little fire beside, and one to turne them continually, haue disclosed and broken at their accustomed time. *Aristotle* writeth, that Egges put in warme vessels, or couered with doung, will hatch of themselues. The number of the Egges that your Henne shall sit vpon, some would haue to be odde, and not alwaies alike, but in Ianuarie, & Februarie fifteene, and no more, in March nineteene, and no lesse: which number you shall continue all the Summer, till September, or October, after which time it is to no purpose to breede any longer: for the Chickins, by reason of the cold weather, and diseases, neuer prosper. Yea, some be of opinion, that after the tenth, or twelfth of June, you shall neuer haue faire broode, and that the best season for sitting, beginneth at the tenth of March. And heerin you must alwaies be sure to haue the Moone encreasing, from that she be tenne daies old, till fifteene: for that is the best time to sit in. And so must you againe dispose the time, as the hatching may fall out in the encrease of the Moone: for the iust time of hatching, there are sundry opinions, *Aristotle* writeth, that they are hatched in nineteene daies, *Varro* (for Chickins) one and twentie daies, or twentie daies: for Peacockes, and Geese, seauen and twentie daies, and sometimes more: Duckes, in the like space to the Henne, specially if they sit night and day, allowing them onely the Morning, and the Euening to feede: which times they must of necessitie haue. If so be you will set vnder your Henne Peacockes egges with hir owne, you must set hir vpon the Peacockes egges, tenne daies before she haue hir owne egges, whereby they shall be hatched all at once, neither must you set aboue fiue Peacockes, or Goose egges vnder a Henne. If you would haue all Cocke chickins, you must choose such Egges as be longest and sharpest, as againe (for Hennes) the roundest, (as both *Plinie* and *Columella* write) though *Aristotle* seeme not of that opinion. To vnderstand which be good Egges, which not, you must (as *Varro* teacheth)

To haue Cock chickins, or Henne chickins.

teacheth) put them in water, & such as be naught, will swim aloft, and the good goe straight to the bottome. Others doe hold them vp against a Candle, & if they see through them, the iudge them light and naught. You must in no wise shake them, or shogge them, least you breake the stringes of life, that are but newly begun: it hath been seen, that by shaking of the Egges, the Chickins haue been hatched lame. We may beside perceiue whether the Egges will proue well or no, if foure daies after the Henne haue sitten, you hold them vp in the Sunne, or other light, & if you see that they be cleere, cast them away, and put other in their places. Against thunder, that many times marreth the Egges, some doe set about them the Leaues, or Branches of Bayes, or Bentes, or Grasse, others (againe) the heads of Garlicke, and nailes of iron. In the great heat of the Summer, you must now and then sprinckle the Egges a little with water, and wet them, least by the extreame heat they ware dry and adle, specially the Egges of Turkeies, and Hennes. Whensoeuer you meane to make clean their nestes, you must take vp the Egges, and lay them tenderly in some little Basket, and so lay them speedily againe in the cleane nest: neare to the place where the Henne sittes, you must set water, and meat, that they may the better keepe their Nestes, and that by their long absence the Egges ware not cold. And although the Henne doth alwaies turne hir Egges, yet it behoueth you when she is from the nest, to turne them softlie with your hands, that by receauing a like warmth, they may the sooner be readie. And if she haue happened to bruste any of them with hir feete, you must presently remoue them. At the nineteenth day, you must looke diligently whether the Chickins doe iobbe the shell with their billes, and hearken whether they peepe: for many times by reason of the hardnesse of the shel they cannot come foorth, and therefore you must helpe them out with your handes, and put them to the Henne, & this you must doe no longer then three daies: for the Egges that after one and twentie daies make no noise, haue nothing in them, and therefore you must cast them away, that the Henne loose not hir labour. Vpon the twentieth day, if you sturre the egges, you shall heare the Chickin, from that time begin the Feathers, the Chickin lying so, as the head resteth vpon the right foote, and the right wing lieth vpon the head, the yolke vanishing by

Against hurt of thunder.

by little and little away. You must not take the Chickins away as they be hatcht, but suffer them to remaine one whole day with the Henne in the Nest without meat or drinke, till such time as they be all hatched. It is woonderfull, and yet the experience seene, that before they be suffered to eate, they take no harme, though they fall from a great height. The next day, when all the flock is come forth, *Columella* would haue you to put them vnder a Siue, & to perfume them with the smoke of Peneriall, or to hang them in a Basket in the smoke, which preserueth them (as it is thought) from the pippe, which many times destroieth the poore Chickin: then must you put them into a Coope with the Henne, and feede them at the first with Barley meale, sodden in water, & sprinckled with a little Wine. Afterwards, when they go abroad, you must feele euery one of them whether there remaine any of the meate they receiued the day before: for if their croppes be not empty, it betokeneth want of digestion, and therfore you must keepe them fasting til all be digested. You must not suffer them to go farre from the Henne, but to keepe them about the Coope, and to feede them till they ware strong with bruised Barly, & Barly meale: you must also take good heede, that they be not breathed vpon, by either Toade, Snake, or Euet, for the aire of such is so pestilent, as it by and by destroieth them all: which mischiefe is auoided by burning of Harts horne, *Galbanum*, or Womans haire, the smoke of all which preuenteth this pestilence. You must see beside that they lie warme: for they neither can suffer cold, nor too much heat, the feathers about their tailes must be pulled away, least with the hardning of their doung, the passages be stopped, which if it be, you must open softly with a little quill: you must keepe them with the Hen for a monethes space, & after suffer them to go at liberty. Both the old & the yoong, are of all other diseases most troubled with the Pippe, specially about Haruest time, which is a little white skin, couering the tip of their tongue, which is to be plucked away with the Nailes, and the place to be poudred with Ashes, or Garlike poudred and sprinckled vpon it. From this plague you shall preserue them, by feeding them in cleane vessels, and giuing them alwaies the purest, & cleanest water, and keeping their houses alwaies cleane, and smoked, or by smoking them, as they sit, with the smoke cheefely of Bayes, and Sauin. The wiues

Against the Pippe.

of

of the countrie do commonly cure them, by thrusting a Feather through their nose, and stirring it euery day: their diet must be Hearbgrace wrapt in Butter, or Garlicke, mingled with Meale or Water, or Cloues of Garlicke wet in warme Sallet Oyle, and put into their mouthes. Some (saith *Columella*) doe vse to wash their mouthes with pisse, and keepe their billes so long close, as the salt and bitter taste forceth them to cast at their Nose the spring of the Disease. Others againe do cut Garlicke in gobbets, and putting them in scalding Oyle, after it is cold, doe wash their mouthes. If they happen to eate Lupines, they will straight swell vnder the eyes, which if you doe not gently open, and take out the Coze, it presently killeth them. And if so be the Pip haue now closed vp the eyes, and that they forsake their meate, you must launch their Cheekes with a sharpe knife, and thrust out the water that lieth vnder the eyes, and put in the wound Salt finely beaten: this happeneth cheefely when in the Sommer time they drinke foule water, and also when they want meate, or take cold. If their eyes be sore, you may heale them with the iuice of Purcelane, and Womans milke, annointing on the outside, or with Cummin, Hony, and salt Armoniack. You shall ridde them of Lice, with parched Cummin, and Staue sacre, a like quantitie of each beaten together, and powred on with Wine: also the water wherein wilde Lupines haue been sodden. If your Henne fall to eating of hir Egges, taking out the white, you must powre in Plaister, of some liquid thing, that may come to a hardnesse in the shell. To keepe them from eating of Grapes, you shall giue them the Berry of the wood called the wilde Vine, gathered from the Hedge before it be ripe, and sodden with Wheat flower, the euill taste whereof will cause them to loath Grapes. *Plinie* affirmeth, that if you giue them the flowres of the Vine with their meate, they will not touch the Grape. As in all other cattell of the Countrey, so in these kinds the best are to be kept, and the woorst either to be sold, or to be killed in the house. And therefore euery yeere about the fall of the leafe, when they cease to breede, you shall lessen their number, and put away the old ones. Such as are aboue three yeeres, and such as are either vnfruitfull, or not good bringers vp of Chickins, but specially those that eate vp either their owne Egges, or their fellowes,

Choise of Poultrie.

fellowes, or such as after the Cockish maner either crowe, or treade: to which number you shall also adde, such as were hatched after the tenth of June, which neuer proove to be faire, but the Cocke as long as he is able to treade you may keepe: For you shall seeldome meete with a good Cocke. For fatting, the best those that haue the skinnes of their neckes thicke and fattishe. The place where you meane to fat them, must be very warme, and of little light, because as both *Varro*, and our owne experience sheweth, the light, and their often stirring, keepeth them from being fatte: thus must they be kept for fiue and twentie daies, wherein they will be fatte. Let them hang euery one in his Basket or Cage by himselfe, which must haue in it two holes, one to thrust out his necke at, the other to cast out his doung, that he may discharge himselfe, and let them be strawed either with straw, or course hay: for the harder they lie, the sooner they fatte. Pull away besides their feathers from their heads their wings, and their tailes, the one for auoiding of lice, the other for binding their bodies. The meate that you giue them, must be Barley meale, which mingled with water, be made in little pellets, wherewith they will be fat (as some thinke) in foureteene daies: but see that you giue it them but moderately at the first, till they well digest it, after giue it them in quantity, according as they digest it: and in any wise giue them no new, till you perceaue, by feeling of their Croppes, that the old be endewed. Others doe sprinkle their meale with Hony sodden in Water, putting to three partes of Water, one of Hony, and one of Wine, and wetting herein wheaten bread, they therewithall do cramme them. Others saie, that if you put hereunto a little Milke, they will be woonderfull fatte. The Cockrels are gelded (as *Aristotle* saith) in the hinder part, which when they tread, falleth out: this part, if you burne two or three times, they will be Capons. And if they be right Capons, their coames becommeth pale, neither crowing, nor treading any more. Our wiues of the Countrey, cutting them betwixt the legges, take out their stones, and sowing vp the wound, annoint it with butter, which done, they shut them vp in a Coope, not suffering them to drinke in a day or two. From the beginning of Haruest, and all Winter long, the offall of the Corne, and the Barnes doore doth feede them sufficiently:

Fatting of Poultry.

Making of Capons.

where they plant vines, sparing others more costly foodes, they feede them with the kernelles of the Grapes: and where there is neither the offall of Corne, nor Grapes, they must be fedde with Dates, Spery, or such like. To cause them to lay in winter, you must giue them (as I colde you) Hempseede. If you would haue great Egges, *Leonetus* teacheth to beate in Pouder Bricke, or Flaunders Tile, and mingling it with Chesill and Wine, to make it in Dow, and giue it to your Henne, or to put a Saucerfull of the pouder of the Bricke, to a Gallon of Bzanne, and to feede them with it. The Egges of Pigions, Geese, Peacockes, and Turkies, be all white, the Egges of water Foule be greenish, and pale, the Ginnie Hennes Egges, be like the Pehennes in all things, sauing that they be speckled as the Turky Hennes. The Phesants, and the Kastrils Egges, are reddish. The Egges of all Foules (as *Plinie* saith) are of two colours, wherein the Water foules Egges, hauing a great deale more yolke then white, and that more black than others. The Egges of Fishes, are all of one colour, hauing no white in them. The Egges of Birdes are by reason of their heate, brittle: and Serpentes Egges, by reason of their colonesse, tough: Fishes, by meanes of their moisture, soft in laying, the round part of the Egge commeth first out, the shell being soft, and presently after hard: what forme soeuer they haue, the long are most commended, as witnesseth the Poet. The Egge in fashion framed long, and of them (as I said before) is brought foorth the Cocke Chicken, as of the round ones the Henne, though *Aristotle* be against it. Some Hennes doe lay very great Egges, and those most times with two yolkes, hauing the shell deuided as it were with a circle, which both *Aristotle* writeth, and our experience approoueth. Some doe lay double, and hatch double: some are so fruitfull, as they lay great numbers at once, some euery daie, some twise a day: some are so fruitfull, as they kill themselues with laying. In the middest of all Egges, there lieth as it were a drop of bloud, which is supposed to be the heart of the Bird, which is the first in all the body framed: The body it selfe is wrought of the white. The sustenance is the yolke, the head while it is in the shell, is bigger then all the body, the eyes shutte vp more then the head. While the Chickin increaseth, the white goeth to the

Of Egges.

the midſt, and the yolke compaſſeth round about. The twentith day (as I ſaid before) if you ſtir the Egge, you ſhall heare the Chickin, from which time the feathers come foorth, lying ſo, as the head reſteth vpon the right foote, and the right wing couereth the head. The addell Egges are thought to come of the vaine luſt and treading of the Hennes together: ſome ſuppoſe them to be bred of the winde, and therefore call them winde egges as *Ariſtotle* before *Plinie* hath written, Egges are preſerued in Winter, if you keepe them in Chaffe, Straw, or Leaues, and in Summer, if you couer them with Bran, or Wheat. Some doe couer them before in fine beaten ſalt for the ſpace of fiue houres, and after waſh them and lay them in Chaffe, Straw, or Bzanne. Others againe couer them in Beanes, and ſome in beane floure, and ſome in heapes of Salt, but Salt, as it ſuffereth not the Egges to corrupt, ſo it greatly diminiſheth the ſubſtance of them. Your Henne houſes muſt be made in that part of your houſe, as lieth in the Winter toward the riſing of the Sunne, and ioyning as neere as may be to ſome Kill, Ouen, or Chimney, or to the Kitchin, ſo as the ſmoke may come amongſt them: for ſmoke is very holſome for this kinde of foule. And that was (I thinke) the cauſe that the old people made choiſe in their quitrents of ſmoke Hennes, as of the beſt, as it appeareth by olde Rentalles. Let the front of your Henne houſe ſtand alwaies towardes the Eaſt, and to that coaſt let the doze open. Let the inner roomes be well furniſhed with Lofts, and Lathers, and ſmall windowes opening Eaſtward, at which your Poultry may flee out in the morning, and come into the rouſt at night. Looke that you make them cloſe at night, and let the windowes be well letteiſed for feare of vermine. Let your neſtes and lodgings, both for laying and brooding, be orderly caſt, and againſt euery neſt and rouſting place, place ſteppes and boordes to come vp by, making them as rough as may be, that the Hennes may take good holde when they flee vp to them, and not by their ouer ſmoothneſſe, be forced to flutter and hurt their Egges. It ſhall not be amiſſe, if you parget the houſe both within and without with good Plaſter, whereby neither Weeſell, nor other hurtfull Vermine may enter in. Boorded flooze are not for Foule to rouſt vpon, which almoſt all kinde of Byrds refuſe, becauſe of the hurt that they receiue

by their young, which if it cleaue to their feete, breedeth the Goute. And therefore to rouſt vpon, you muſt make them perches, which *Columella* would, ſhould be made foureſquare: but it is better to haue them round, ſo that they be not too ſmooth for them to take hold by. Let the Perches reach from one ſide of the wall to the other, ſo as they ſtand from the flooze a foote in height, and two foote in diſtance one from the other: and thus haue you the faſhion of your Henne houſe. The Court where they goe, muſt be cleane from young and durtineſſe, not hauing water in it, ſauing in one place, and that muſt be very faire and cleane: for if it be puddle, or durtie, it breedeth (as I ſaid before) the Pippe. To keepe their water cleane, you may haue faire erthen, or ſtone veſſell, or Troughes of wood, couered in the toppe, in the which there muſt be ſeuerall holes ſo bigge, as the head of the foule may eaſely enter: for if you ſhould not keepe them thus couered, the poultry would in their drinking defile and poiſon it with their young. Their meate muſt be giuen them betimes in the morning for ſtraying abroad, and a little before night, that they may come the timelier to their reſt. Thoſe that be in the Coope, muſt (as *Columella* ſaieth) be fed thrise in the day: the others muſt be vſed to an acquainted voice, that they may come at the calling. The number muſt be well marked: for they ſoone deceiue their keeper. Beſide, you muſt haue round about by the walles, good plentie of duſt, wherein they may bathe and proyne themſelues: For as the Swine delighteth to wallow in durt, ſo doth this kinde to bathe and tumble in the duſt. And this is (I thinke) almoſt all that is to be ſaid of Pullein.

MELLISSEVS. Yea but we muſt heare ſomething alſo touching the other ſortes of Foule, that are kept about the houſe, which peraduenture *CHENOBOSCVS* can inſtruct vs of.

CHENOBOSCVS. And if you will needes haue me, I will not refuſe to ſhew you ſomewhat alſo of my fetbered cattell.

MELLISSEVS. I pray you doe ſo.

Of Geeſe.

CHENOBOSCVS. Amongſt the Foule that we keepe about our houſes in the Countrey, the ſecond place of right is due to the Gooſe and the Ducke, which are of the number of thoſe that they call *Amphibia*, becauſe they liue as well vpon the land, as the water. And becauſe the keeping of Geeſe requires no great labour,

it is

it is a thing not vnmeete for the husbandman, for that (if he haue place commodious for it) it is done without any charges, and yeeldeth good aduantage both with their broode, and feathers, for beside the profite of their Egges, you may twise in the yeere, at the Spring, and the fall of the leafe pull them. Moreouer, they are a very good dish for the table, yea, being more watchfull then the Dogs, they giue warning when they sleepe. And therefore they were with the Romanes had in great honour, because they with their gaggling bewraied the enemy, that otherwise in the night time had taken the towne: *Plinie* writeth of a Goose that would neuer be from the Philosopher *Lacydes*. Your choise must be of those that be of the faireſt kinde: *Varro* liketh best the white ones, which colour was most esteemed in the old time, as appeareth by the presents that were giuen: the same *Varro* accounteth the gray for a wilde kinde. They are kept in Marshes, Fennes, Lakes, and Moorish commons: for to Corne ground, Medowes, and Pastures, it is a verie hurtfull Foule: she bireth whatsoeuer young spring she may reach, and what she once hath bitten, doth neuer lightly prosper againe. Besides, she stencheth the ground with hir vnprofitable, or rather most hurtfull dounging: wherefore (as I saide) it is best to keepe them in Fennes, Lakes, and Marshes. If you haue store of such ground, you shall do well to keepe them: for you can not well keepe them without good store of water and pasture. The Goose delighteth in such meate as is naturally moist and cold, and shunneth naturally such things as are hurtfull for hir, as the leafe of the Bay, and (as *Alianus* writeth) the *Oleander*: the best and meetest time for them to breede in, is from the Kalends of March, to the tenth of June. They tread most commonly in the water, while they swimme in the Riuers, or Fishponds. *Columella* would haue you keepe for euery Gander, three Geese, thinking by reason of their vnweldinesse, this number to suffice: within your court, you must make them for their better safetie, seuerall, and secret pennes, in sundry partes thereof, where they may sitte and breede. Some would haue the Goose roome framed in such order, as euery Goose may haue hir place to hir selfe: which, if any man thinke too troublesome, he may make one sufficient wide roome to serue them all. The places where they shall lay, must be dry, and well strawed

with straw, or such soft matter, and well defended from vermine. The Goose must not be suffered to lay out of hir nest, but when you shall perceaue they seeke it, you must grope them, and if they be with Egge, which you shall easely feele, but shutte them vp in their nestes, which you shall not neede to doe aboue once, or twise: for where she hath once laide she will alwaies of hir selfe seeke to be. They will lay (as some hold opinion) thrise in the yeere, if they be not suffered to sitte, as it is best you do not: for their Egges are better to be hatched vnder a Henne, then of them selues, and will better a great deale prosper. The Egges of Geese, and Swans, were vsed (as *Alianus* witnesseth) as a most dainty dish at bankets among the Kings and Princes of the Indies. *Aristotle* affirmeth, that the Goose alwaies vseth to sitte, and neuer the Gander, contrary to the order of many other foules, continuing alwaies till she haue hatched. After the last laying, you shall suffer them to sit, and marke euerie ones Egges with a seuerall marke, that they may be set vnder their owne Goose, for it is thought they will neuer hatch a strangers Egges, without she haue hir owne vnder hir. Of Goose Egges, as of Pehennes Egges, you shall (as I said before) neuer set vnder a Henne aboue fiue, nor vnder three: but vnder the Goose you shall set at the least seuen, and at the most fifteene. You must keepe to lay vnder your Egges, the rootes of Nettles, which they say, preserueth them against the stinging of Nettels, which otherwise many times killeth the Gosling, if they sting them. The Egges will not be hatched if the weather be colde, before the thirtieth day, if it be warme in lesser time: howbeit for the most part, the Gosling is hatched the thirtieth day after the sitting. Some doe vse to set by the nestes, Barly steeped in water or Malt, whereby the Goose shall not be forced to be any while absent from hir Egges. When your Gosslings are come foorth, you shall for the first tenne daies feede them with the Goose in the nest. Afterwards, when the water is faire, you may suffer them to goe abroad, taking good heed that they be not stinged with Nettels, nor that you let them goe a hungerd into the Pastures: but to giue them after they goe abroad the leaues of Endiue, or Lettuse chopt, to asswage their hunger: for if you put them a hungred into the feeld, they straine and breake their owne neckes, with pulling at the tough and stub-

borne

horne weedes, by reason of the sudden starting backe againe of the weede. The Gosslings of diuers broodes must not goe together, nor be shut vp together, for hurting one another. When they be foure moneths old, or somewhat before, is the best time for fatting them: the young ones are soonest, and easliest fatted. If you giue them ground Malt, and wheat floure, you neede to giue them nothing, so you let them haue drinke enough, and keepe them from going abroad. The Greekes did vse to put to two partes of ground Malt, foure partes of Bran, tempring it with water, letting them drinke thrise a day, and at midnight. If you would haue their liuers soft and tender, you shall mingle dry Figges well beaten with water, and making pellets thereof, cram them with it for the space of seuenteene or twentie daies. The Iewes at this day, being the skilfullest feeders that be, doe vse a strange order in the fatting of them, wrapping the Goose in a Linnen apron, they hang hir vp in a darke place, stopping hir eares with Peason, or some other thing, that by neither hearing, nor seeing of any thing, she be not forced to stroggell, nor crie: after, they giue hir pellets of ground Malt, or Barley steeped in Water thrise a day, setting by them Water and Grauell, by which maner of feeding, they make them so fatte, as the Liuer many times commeth to be fiue pound in weight. Whilest I was at the Councell of *Wormes*, there was a Liuer of a Goose brought me by a Iewe, that waied foure pound. *Plinie* is also a witnesse, of the greatnesse of the Lyuers of fatte Geese, affirming, that they will growe after they be out of the bodies, being sprinckled with milke. The common order of fatting with our countrey people, is to shut them vp in a darke, and a narrow place, and to set before them Barley, or Beech wheat, giuing them water, with a little Sand, or Grauell in their Troughes: and with this order they haue them fat in fourteene dayes. After harueſt, they will be fat with the Grotten, or Stubble. They are plucked (as I sayd before) twise in the yeere, in the Spring, and in the fall of the leafe. Some vse to clippe them, but then their feathers neuer grow so well: but if you pull them, you shall haue them to come verie faire againe: and this is enough for a Goose. Duckes and Teales, are to be ordered in like manner almost as the Goose, sauing that they delight more in waters,

Fatting of Geese.

Duckes.

and Parishes: and therefore you must force some Waters, Lakes, or Pooles, for them, whereunto they may easely goe and swimme, and viue at their pleasure. *Columella* would haue you haue a Court for the nonce for them, where no cattell vse, and neere to the house, round about the which you shall build for them little handsome roomes, three foote square, with priuie doores to euery one of them: which when they breede, you shall keepe shutte. Hard by, you must haue either some Pond, or Riuer wherein (as I said) they may swim: for without the help of the water they can as euil liue, as without the land. It is good also to haue neere vnto them, some good Pasture, or meddowe, or to set about the Ponds or Riuers, such hearbes as they best like, as Clauer, Fenegreeke, Endiue, Lettise, and such other as they most delight in, and wherewith their young doe well feede: beside, you must giue them Otes, Barley, and other corne in water. There is nothing that they more loue then Acornes, nor that better fatteth them. They delight wonderfully to be amongest Reedes and Sedges, wherein they may lie safe from rauenous Birdes, but so, as there grow no great stalked weedes, that may hinder their swimming: for they delight greatly to plaie them selues in the Water, and to striue who can swim fastest, when the weather is fayre and warme: for as they loue such places where they may best pray vpon the creatures of the water, so are they much offended, if they be restrained of their libertie in swimming. In winter, when the waters be frozen, you must ply them sometimes with meate. They delight to make their nestes in some secret Couert, but therein you must preuent them, and make their nestes in their owne lodging, or abroad, well couered and closed with weedes: to which nest you must haue some little sluce, or gutter, by which you may euery day powre in Water and Meate. Their feede must be (as I said) Otes, Barley, Pease, Panicle, Millet, and Spery, if you haue any store. They lay great store of Egges, wherewith as with Goose Egges, you may well feede your familie. The Egges of Duckes and Geese, are kept in like sort as I told you of Hennes Egges: and beside in Bran, Wheat or Ashes. They breede in the same season that Geese and other Foule doe, about March and Aprill. And therefore where you keepe them, you must strawe sticks and strawes for them to

make

make their nestes with all. Their Egges must be suffered to be hatched by them selues, or els remoued and set vnder some Henne: for the Ducklinges that the Hen hatcheth, are thought to be gentler and tamer. You must take good heede, that the Egges which they laye, be not eaten and spoyled by Crowes and Pies, while the damme is seeking abroad for meate. If so be you haue Riuers and Lakes for the purpose. It is best to let the dammes bring them vp, for when they be hatched, they will liue very well vpon the water with their dammes, without any charge at all: onely take good heede, that they be defended from Buzardes, Kites, Crowes, and other like vermine: but so you vse them, as they will euery night come home to the house, for it is not good to let them be abroad in the night, for danger of loosing of them, and making them wilde. Yet hath it been seen, that such as haue hatched abroad, haue afterwardes come home, and brought with them a great number at their tailes. When I was Embassador in England, it was told me by men of good credite, that there was in Scotland neere to the Sea, certaine Trees, that yeerely brought foorth a fruit, that falling into the Sea, became a kind of wilde Duckes, or rather Barnacles, which though it seemed strange vnto me, yet found I *Aristotle* a witnesse of the like, who writeth, that the Riuer *Hypanus* in *Scythia*, bringeth foorth Trees, whose leaues being somewhat larger then Maple leaues, wherof commeth a kind of foure footed Byrds.

But now to Peacockes, which Byrdes, being more for pleasure then profite, are meeter to bee kept of Noble men, then of poore Husbandes of the Countrey, though *Varro* writeth, that *M. Anfidius Lurco*, who first began the fatting of this Foule, made yeerely of his Peacockes foure hundred pound, whose example numbers following, the price of Peacockes grew to be great, so much, as their Egges were sold for halfe a crowne a peece, the Peacockes them selues, at foure Nobles a peece. The flesh is very good and delicate, meete for Noble mens Tables, and will be long kept without corrupting, the Egges also be very pleasant, and good to be eaten. *Hortensius* they say, was the first that euer killed Peacocke for the Table in Rome, as a new dish at the Priests feast. To this Byrd, is ascribed both vnderstanding, and glorie: for being praised, he settes vp straight his taile, and (as *Plinie* eloquently describes Peacockes.

describes it) cheefely against the Sunne, whereby the beautie may more be seene. His taile falling euery yeere with the fall of the leafe, he mourneth, and creapeth in corners till his taile be sprong againe. They goe abroad, as Hennes and Chickins doe without a keeper, and get their owne liuinges. They be best kept in little Ilandes: for they flie neither hie, nor farre off. Some thinke it to be a spitefull and enuious Birde, as the Goose to be shamefast, and that he deuoureth his owne doung, because he would haue no man receiue benefite by him. He liueth (as *Aristotle* saith) fiue and twentie yeeres: he breedeth at three yeeres olde, the Cocke hauing his feathers diuers coloured: he hatcheth in thirtie dayes, as the Goose doth, and layeth three times in a yeere, if his Egges be taken away, and set vnder a Henne. You must looke that those that you set vnder a Henne, be new laid, and that the Henne from the first of the Moone, be set vpon nine Egges, fiue of the Peacockes, and foure of hir owne. The tenth day after shee hath sit, take away the Hennes Egges, and put vnder the like number of fresh Hennes Egges. They must be turned, and therefore marked vpon one side. And see that you choose the greatest Hennes, for if the Henne be little, you must take the lesser number of Egges, as three Peahennes Egges, and fiue Henne Egges. When they be hatched, you must as you doe with the Henne, let them alone: the first day afterwards bring them out, and put them with the damme into a Pen, and feede them at the first with Barley flowre sprinkled with water or pappe made of any other Corne, and cooled. A few daies after, giue them beside this, chopped Leekes, and Cruddes, or fresh Cheese, the Whay well wrong out: for Whay is thought to be very hurtfull for the Chickins. After they bee a moneth old, you may let them goe in the field, & follow the Henne, tying the Henne with a long line, that she goe not to far abroad, but that the Chickin may come home in time. After the sixth moneth, you may giue them Barley, and Bread: and after the seuenth moneth, you may put them to rouste in the house with the other Peacockes, not suffering them to sit vpon the ground, but vpon Perches for taking of colde. And although when they ware great, they cheefely delight to sit vpon the toppes of houses, and be as the Goose is, which are the best watchmen, and also the best warning giuers

in

in the night time: yet is it best for you to vse them to flete vpon Perches, in houses made purposely for them. *Columella* thinkes it not good to suffer sundry Hennes with their Chickins to feed together, because the Henne after shee seeth a bigger then hir owne, maketh the lesse account of hir owne Chickins, and many times by that occasion forsaketh them. The Cocke, for the great lust that he hath to treade, breakes asunder the Egges that be vnder the Henne, and therefore it is best to haue the Hennes to sit as secretly as may be: they also vse to beat and chase their owne Chickins, till they see them cressed vpon the head, taking them till then, to bee none of their owne. One Cocke suffiseth for fiue Hennes, who by too oft treading, doth many times cause that the Egges neuer come to good. In warme countries they begin to treade in February, when setting vp his taile round about him, taking himselfe for no small person, he beginneth to woe, and therefore at this time both the Cocke, and the Henne, are to be cherished with meates for the purpose to increase their lust, as Beanes tosted a little by the fire, and giuen them warme euery fiue dayes in the morning. The quarellous and troublesome Cockes, must be seuered from their fellowes, for hurting the weaker, and keeping others from treading. The Hennes must be kept so, as they may lay onely in their houses, and euery day groped for their Egges, and heedely looked to, with soft strawe laide vnder their Perches: for many times they lay as they sit vpon the Perch. The diseases of this Foule, and the remedies, are almost one with the diseases of the house Cocke and the Henne spoken of before, that is, the Pippe, & ill digestion. Their greatest danger is, when their Coames come first out, for then are they pained, are children are in breeding of teeth. Diseases.

MELLISSEVS. I would faine learne the right ordering of their outlandish Byrdes, called Ginny Cockes, and Turkey Cockes. Turkie Cocks.

CHENOBOSCVS. This kind of Poultrie we haue not long had amongst vs: for before the yeere of our Lord 1530. they were not seene with vs, nor I beleeue knowne to the old writers. Some haue supposed them to be a kind of the Byrdes, called in the olde times *Meleagrides*, because of their blewish coames: but these kinds haue no coames, but onely wattels. Others againe reckon them

them for a kind of Peacockes, because they doe in treading time after the same sort, spread and set vp their tailes, bragging and vaunting them selues: howbeit they neither resemble these in all pointes. But because this kind of Foule, both for their rarenesse, and also the greatnesse of their body, is at this day kept in great flockes, it shall not be much amisse to speake of them: for in daintinesse and goodnesse of meat, the Hennes may compare with either the Goose, or the Hehen, and the Cocke farre excell them. The colour of their feathers, is for the most part white, blacke, or pied white and blacke, some blew and blacke. Their feete are like vnto the Peacockes, their taile short, but spread, and borne vp after the Peacockes guise, specially when they tread. The heades and the neckes of them, are naked without feathers, couered with a wrinckled skinne, in maner of a Cowle, or a Hoode, which hanging ouer their billes, they draw vp, or let fall at their pleasures. The Cocke hath the greater wattels vnder his chinne, and on his brest a tuft of haire. The colour of that wrinckled skin about his head (which hangeth ouer his bill, and about his necke, all swelling as it were with little blathers) he changeth from time to time like the *Chamelion*, to all colours of the Rainebow, sometimes white, sometimes red, sometimes blew, sometimes yellow, which colours euer altering, the byrd appeareth as it were a myracle of Nature. The dieting and keeping of them, is almost all one with the Peacocke, sauing that this byrd can worse away with cold, and wette. It is a Byrd woonderfully giuen to breeding, euery Cock must as the Peacock, haue foure or fiue hennes with him: they are more forward in breeding then the Peacocke, beginning either the first yeere, or at the farthest at two yeere olde: they begin to lay in March, or sooner. In hoat Countries they lay great numbers of Egges, if they be continually taken from them, & set vnder Hens, and if so be you take them not away, they begin to sit at the first: for they be of all others most giuen to sitting, and so much, that if you take away all their Egges, they will sit vpon a stone, or many times the bare Nest. You must therefore restraine them of this desire, either thrusting a feather through their nose (as I before told you) or by wetting their bellies with cold water. You must set vnder their Egges (as I taught you before) in the Peacock: for they

haue

haue both one time of hatching. The keeper muſt marke the one ſide of the Egges, and alwaies turne them, ſprinckling them now and then gently with faire water, and take heede the Cock come not at them, for he will breake them as well as the Peacock: for the Cock of this kind, is a froward and miſchieuous Byrd. The Chickins being hatched vnder a Henne, may bee kept with the Hennes chickins, or els very well alone with the Henne, growing faſter a great deale then the Peachicke. You ſhall feed them in like ſort as you doe the Peacocke, or other Poultrie: for they will eate any thing, and delight in Graſſe, Weedes, Grauell, and Sand. And becauſe they cannot away with cold, nor wette, you muſt keepe them in Winter, in the warmeſt, and dryeſt places you haue. The Pearches whereon they vſe to ſit, muſt not be hie, but an eight or tenne foot from the ground, neither be they able to flie any great height, and therefore muſt be holpen with Lathers, or ſteppes. The greateſt diſeaſe, that they are ſubiect vnto, as the Pippe, and the Squecke, which muſt be holpen in like ſort as the Hennes, and the Egges kept after the ſame maner. In ſome places they vſe to make Capons of them when they be yoong, which are ſerued as a daintie diſhe to the Table, as was much vſed in the houſe of that godly and vertuous *Sempronia*, that Ladie Hales of Kent, who was firſt the wife of Sir Water Mauntill of Northamptonſhire, a woman in whom all vertues and bounties in hir life time florished.

Ladie Hales a mirrour of Gentlewomen.

MELLISSEVS. I well remember that Lady, and haue heard hir highly commended of ſuch as in hir life time beſt knew hir, for a number of gracious and godly giftes that were in hir, as hir ſpeciall loue and delight in God, and in his ſeruice, hir helpfull hand and comfort to ſuch as were poore, and diſtreſſed, as well in releeuing them with meate and money, as with healing diſeaſes, and curing a number of lothſome, and almoſt incurable vlcers, and wounds; hir milde and ſweet diſpoſition, hir great humilitie and careleſſenes of the vaine world, and other ſuch vertues, I would to Chriſt that all other Gentlewomen, that profeſſe Chriſt outwardly, were as well giuen to follow him in deede, as ſhe was vnfainedly.

CHENOBOSCVS. Shee was the very Phenix and Parageon

rageon of all the Gentlewomen that euer I knew, neither am I sure I shall euer see the like: but shee happely resteth with him, whom in hir life time shee so earnestly serued. If you be not weary, I will returne to my Foule, and shew you the best order for keeping and maintayning of Pigions.

PVLLARIVS. I thinke both *MELLESSEVS*, and *PISCINARIVS* would gladly heare you tell vs something of this, as I my selfe most willingly also would.

CHENOBOSCVS. Though you *PVLLARIVS* are better able to speake heerof then I am, yet because of my profession, I will not refuse to take it vpon mee. Whatsoeuer he be, that giues himselfe to the trade of Husbandry, it behoueth specially to haue a care for breeding of Pigions, as well for the great commoditie they yeeld to the Kitchin, as to the profite and yeerely reuenue that they yeeld (if there be good store of Corne feeldes) in the Market. *Varro* writeth, that in his time a paire of Pigions were sold for 1000. *H.S.* And that *Lucius Axius*, a knight of Rome, before the ciuill warres betwirt *Cæsar* and *Pompey*, solde his Pigions at x. pound the paire: so much was that time giuen to wantonnesse, and gluttony, yea, at this day in our time, hath been seene giuen for a paire of Pigions x. li. Flemish. And therfore the Douehouses are commonly built with great cost, and beautie, in the toppes of turrets and houses, from whence by narrow grated windowes they flie abroad to their feeding. Pigions (if the countrey be for them) are fedde and maintained with little cost, feeding themselues all the yeere long with such meate as they find abroad, except at such time as the ground is couered with snow, when as you must of necessitie helpe them with a little meat. There is two sortes of them, one wilde kind, that is brought vp in Douehouses, and is of colour, either blewish, white, speckled, or dunne: howbeit, the white is not good to be kept, because they be sooned destroied with vermine. In Italy there are of this sort, as bigge againe as ours, and are now common in Flaunders. An other sort is more familiar and tame, and something more large of body, with rough feete, and commonly of colour white, and sometime speckled and yellowish: this kind is commonly kept in Cities and Townes, where the others cannot be kept, and is fedde with meat at home,

Pigions.

and

and because they are euer in danger of vermine, and rauening Byrdes, they are still kept within doores, and alwaies fedde at home. This kinde the common people call tame Pigions, or month Pigions, because they breede euery moneth, saue in the dead of Winter. Both these sortes are woonderous fruitfull, breeding commonly eight times a yeere (if the kinde be good) yea sometimes tenne, and aleuen times: for in Egipt (as *Aristotle* telleth) they breede all the Winter long. And though Hennes are more fruitful in laying of Egges, yet Pigions are more profitable by often bringing forth yoong: and therefore you must prouide you such breeders, whose bodies be great & faire, not too old, nor too yoong, of a good and perfect colour, and a fruitfull kinde. It behoueth him that will begin a Douehouse, not to begin with the yoong and little ones, but with the breeders, and to buy so many Cockes, as he doth Hennes, and to keepe them if he can, matched together of one Nest: for if they be so matched, they will breede a great deale better. They bring forth commonly a Cocke and a Henne together (as *Aristotle* writeth) & our experience sheweth it. In March they begin to breede, if the weather be warme before. There is no byrd fruitfuller then the Pigion, and in fortie daies she conceaueth, layeth, and sitteth, and bringes vp, and that for the most part all the yeere, except (as I said before) in Winter. Shee laieth two egges, & when she hath laied the first, which is a Cocke, the next she laieth, which is a Henne, the third neuer lightly commeth to good. Both the kindes doe alwaies sit, the Cocke in the day, the Henne in the night, they hatch in twenty daies, they lay after fiue treadinges. In Sommer they sometimes bring forth in two monethes three paire: For vpon the 19. day the hatch, & presently conceaue againe. And therfore you shal often find among the yoong Pigions, Egges some ready to hatch, and some flying: if there be no Cockes, the Hennes will tread one the other, but their Egges neuer come to good, but are winde Egges: *Aristotle* and *Theodorus* calleth them water Egges, whereof there neuer commeth any thing, and because the yoong ones will breede at fiue monethes old, we suffer the first flight to flie, to increase the breede: as being hatched in March, will breede againe in July, or August. Those that we meane to take for the Kitchin, or the Market, are best to be drawne at the latter

time

time of the yeere, when they are woxth able to defend themselues from the cold, and from Buzardes, and Crowes: the best for broode among all Foules, is the March broode. They that meane to fatte Pigions to sell them the dearer, doe seuer them when they be newly feathered, and feede them with chawed white Bread twise a day in Winter, and thrise in Sommer: and such as be now hard pend, they leaue in the Nest, plucking the feathers of their wings, and breaking their legges, that they remoue not from their places, giuing the dammes good plenty of meate, that they may better feede them selues, and their young. Some (as *Gellius* writeth) doe softly tie their Legges, for if they should breake them, they thinke the paine would keepe them from fatting: but this tying doth little good, for while they struggle to get them selues loose, the labour will keepe them from being fatte: but their Legges being broken, the paine will not remaine aboue two daies, or three at the vttermost, & will keepe them that they shall neuer stray from their places. Some vse onely to pinion them, but so fall they many times out, and become a pray to vermine: and therefore it is good to bring them to the Kitchin, before they be full ripe. The vnfruitfull and naughtie coloured, & the otherwise faultie, ought cheefely to be fatted, and must be crammed in such sort, as you cramme Capons. Douehouses, or places for Pigions, to build in, are made after diuers maners: for the tame Pigions, and such as are fedde at home, they make in the highest partes of their Houses lying toward the South, certaine hollow roomes, and celles for them, such as *PVLLARIVS* hath described of his Pullen: and if the place doe not so serue, driuing in certaine Pinnes into the wall, they lay vpon them frames of boordes, with particions in them, or earthen pottes to breed in, leaping certaine Ledges run from hole to hole, that they may the better come to their Nestes, and walke vp and downe in the Sunne. But the houses for the other wilder kind, because they containe great numbers, are built after a more handsomer order, although vnder the eues of houses, and in steepels of Churches, you shall haue thousands breeding. *Varro* appointes the Douehouse to be built in this sort: a Towre adioyning to the house, and well lofted and seeled, aboue, with one little doore in it, and foure windowes, answering the foure quarters of the Heauen,

which

which windowes must be well grated, so as they may giue light enough, and keepe out Vermine. All the walls within must be faire white limed, for with this colour is the Pigion woonderfully delighted: besides it must be well pargetted and plaistred without, specially about the windowes, so as neither Mouse, Weesell, nor other Vermine may enter: the windowes must be so placed, as they may let in the Sunne all the Winter, hauing a hole of sufficient wideneſſe ouer against them, well netted and tunnelled, in such sort as the Pigions may easely flee out and in at, and yet not suffer any hurtfull bird to enter: for the Pigion taketh great delight in flying now and then abroade, where after she hath recreated hir selfe, she commeth with ioy to hir nest againe: as on the other side she mourneth, if she be restrained of hir liberty. Round about the walls within you must haue little round holes, from the top to the bottome, wherein they may breede: *Varro* would haue them three handfulls in length, and ledged from hole to hole for them to walke vppon. Some thinke it best to make your holes of Lome, or Lime, and not of Bricke and Stone, as many do, because of the warmth. There be some that build their Douehouses vpon pillers in the middest of some Pond, or great water, both because they delight in water, and because they will haue them safe from vermine. The meate that they most delight in, is Tares, wilde Fetch, Pease, Wheate, Millet: where these be not, you may giue them Spery, specially in winter Rape seede, and Cocle: for by gathering and pecking vp these little seedes, they get themselues a heate in cold weather. When you giue them meat, you must throw it hard by the walles: for that part is commonly cleanest from doung. And though *Varro* bids you to sweepe and make cleane your Douehouses continually, and that the doung is good and profitable for the feeld, yet seeing this kinde of foule doth delight in places sprinkled with their owne doung, you shal not neede to be carefull in clensing of it. Looke well that they be not fraide, or disquieted with Gunnes, or noise of people, or other like, specially when they sitte: if you haue occasion to go into the house, see that you do it about noone time, when they be abroad a feeding, and be sure to knock well before you come in. Some say, that it will cause them to loue the house, and allure others to come thither, if you sprinkle them with Commin, before they go

to feeding, or perfume the house with Sage, and Franckensence. Some haue an other experience for this purpose, and that is Potshardes beaten small & fearced, mingled with the hearbe Coast, and good old wine, & geuen vnto them. Others take Barley flowre, sodden with dry Figges, and a part of Donie *Cardan* teacheth this, as the best for this purpose, of Barley, or Millet, of Commin, of Coast, of *Agnus Castus*, of Hony, of old Lome, or Mozter, of good Mulkadell, boile them all together, and make a stone of them to be set in the middest of a house. *Tragus* teacheth to take the rootes of the Thistell, and to boile them with the pickle of hearings. *Constantine* out of *Didymus*, writeth of diuers other things for this purpose, which who so will, may trie, Looke well that they be not destroied by the Hauke, or Buzard: the Hauke is a speciall enemie to this Bird, whose taking, *Varro* teacheth you in this manner: to lay a Pigion vppon the ground, and to sticke, bending closely ouer hir, a couple of Lime rods. There is a kinde of Hauke, that naturally is terrible to other Haukes, and preserueth the Pigion: the common people call it Castrell. *Columella* affirmeth, that if you take the young Castrels, and preserue them euery one in earthen vessels well couered and plastered all ouer, and hang them in the corners of the Douehouse, it makes the Pigions haue such a loue to the house, as they will neuer forsake it. They haue many other aduersaries, Crows, Daws, and Owles, which all destroy the Pigions, specially when they breede. I found of late in mine owne Douehouse, an Owle sitting solemnly in the Nest vpon hir Egges in the middest of all the Pigions, and hard by the house of an olde hollow tree, I found peeces of young Pigions, that the Owls had brought to feede their young with: and though the Owle seeme to be greater then the Pigion, by reason of the thicknesse of hir feathers, yet will they creepe in at as little a place as the Pigion will: so small and little is their bodies, though they be bombased with Feathers. Againe Weesels, Stoates, & such like, *Palladius* would haue you hedge the Douehouse about with sharp prickly branches void of leaues, as Gorse, Bryers, and such like, as they dare not passe through for pricking. *Dydimus* and others, do bid you hang great branches of Rue all about the house, specially at the entrance of the doore, or to put wilde Rue vnder their wings, or to sprinckle them

them with Rue: for this hearbe (as they say) hath a speciall force against such hurtfull vermine. Some say, that if a Wolfes head be hanged in the Douehouse, it will driue away all hurtfull vermine.

MELLISSEVS. We haue heard enough of Pigions, I pray you proceede with such other Byrds as you keepe in the countrey. Keepe you any Fesants heere?

CHENOBOSCVS. This kinde of Birds (though they be very seldome kept among the countrey people) yet of many curious and fine fellowes, for their rarenesse and daintinesse, they are brought vp, and kept. And because they benefite the keeper, and profite the Husband, (if the soile and countrey be for them) the old writers haue placed the keeping of them, within the compasse of husbandrie. *Palladius* teacheth, that you must prouide such as be young and lustie, that were of the last yeeres bringing foorth: for the old ones be neuer fruitfull. One Cocke is sufficient for two Hennes: they breede once a yeere, and lay to the number of twentie Egges, beginning in Aprill, and somewhere in March, but they are better to be brought vp vnder a Henne: so as you set vnder one Henne fifteene Egges, obseruing the time of the Moone, and the number of the daies, as I told you before of the Henne. The thirtieth day they come foorth: for the first fifteene dayes must feede them with Barly floure tenderly sod, and cooled, vpon which you must sprinckle a little Wine. After you shall giue them Wheate, Grashoppers and Antes Egges: let them not come neere the Water for catching the Pippe, which if they chance to haue, you shall rubbe their bills with Garlicke stamped together with Tarre. They are fatted in thirty daies with Wheate floure, or Barly floure made in Pellets, the Pellets must be sprinckled a little with oyle, and so put into their throats: you must take heede you put it not vnder their toongs, for if you do, you kill them: neither must you giue them any meate till you perceiue the first be digested. Pheſantes.

PVLLARIVS. What say you to Turtle Doues, these are also brought vp and kept in some countries.

CHENOBOSCVS. Columella affirmeth, that Turtles will neuer lay, nor bring forth in the house, nor Partriges: and therfore they vsed to take them wilde when they were full ripe, and to feede & fat them in little darke roomes like Pigions holes: the old ones Turtles.

be not so good, as neither the Pigion is. In Winter you shall hardly haue them fatte, in Sommer they will fatte of themselues, so they may haue plentie of Wheate and Corne: the water must be verie cleare and fresh that you giue them. They hold opinion, that the Turtle after he hath lost his mate, continueth euer after solitarie. But because there is greater store of Thrushes and Blackbirds, we care the lesse for keeping of Turtles. Though Thrushes and Blackbirds be kept in diuers places: yet as *Plinie* saith, there is in no place greater company, then is taken in the Winter time in Germanie: that they were vsed for great dainties, appeare by *Horace*:

Thrushes and Blackbirdes.

No daintier dish then is the Thrush,
Nor sweeter then the Frype.

They are commonly dressed whole and not drawne, for their inward partes may well be eaten, so they be new: their Crops are commonly full of Juniper Berries: *M. Varro* writeth, that Thrushes were in his time at twelue pence a peece. Where they vse to keepe them, they also put as manie as they take wilde among the others that they brought vp before, by whose company and fellowship they passe away the sorrow of their prisonment, and fall to their feeding: for you must alwaies haue old fellowes for the purpose, by whose example they may learne both to eate and drinke. They must haue warme houses, as your Pigions haue, crossed through with small Pearches: for after they haue flowen about, or haue feede, they desire to rest. The Pearches must be no higher then a mans height, so as you may easely reach them standing vpon your feete. The meate must be cast in such places of the house, as lye not vnder the Pearches, for filling of it. *Columella* and *Palladius* write, that vnripe Figges beaten and mingled with Wheate-flowre must be giuen them, that they may eate thereof their filles. *Aristotle* maketh manye kindes of them, among which hee also putteth the *Colmons*, that feedeth vppon Grapes. Our Thrushes doe feede for the most part vpon Juniper berries, which their Crops being opened (as I said) doe shewe. They vse also in many places to keepe Quailes, which is rather a Birde of the earth, then of the aire (as *Plinie* saith) but because they feede vpon Elebor, and venemous seedes, and beside are vexed with the

Quailes.

falling

falling ſickneſſe, many do meruaile (as *Athenæus* writeth) why they be ſo greatly eſteemed. They ſay, their young muſt be feede with Ants, and Emets Egges, as the Partrige. It is thought, that he flieth ouer into other Countries in the Winter time, as the Crane, and the Stoꝛke doth, following foꝛ their guide the oldeſt Quaile, called the mother Quaile.

PVLLARIVS. You haue foꝛgotten one noble and goodly foule, that is vſed to be bꝛought vp in the huſbandmans ponds, Lakes, and Riuers, I meane the Swanne.

CHENOBOSCVS. You ſay true: foꝛ this Bꝛyde is commonly bꝛought vp in the lowe countries, and kept in great numbers in Linconſhire, a country repleniſhed with Gentlemen of good houſes, & good houſe keepers. And *Athenæus* alledging the auctoꝛity of *Ariſtotle*, accounteth this Foule to be verie fruitfull, and of great ſtomacke, ſo much, as it is thought they dare geue battaile to the Egle. They are bꝛed and kept (as you well ſay) in Lakes, Riuers, and Fiſh ponds, without any charge at all, and doe great good in the Riuers by plucking vp the weeds, and other annoyances: foꝛ the excellencie of his downe, and daintineſſe of his fleſh, hee is greatlie eſteemed. There is one excellent kinde of them, that taketh his name of the good watch that he keepeth, and is alwaies cheriſhed and kept in the Ditch of Cities, and Foꝛtreſſes, foꝛ his great faithfulneſſe in giuing warning. They be kept almoſt in like manner as Geeſe are, but that they vſe to ſit longer, ſitting a whole moneth oꝛ there abouts: they bꝛing foꝛth ſeldome aboue eight, and ſo manie did my Swannes bꝛing me, and ſometime fiue. They make their Neſtes hard by the water of Sedges, Weedes, and like ſtuffe: their young ones they carry ſtreight into the riuers. If the Lakes and ſtreames be frozen in winter, you muſt houſe them. This Bird is counted among ſuch as liue longeſt, foꝛeſhewing hir owne death, as *Plato* and *Martiall* witneſſe, with a ſweete and lamentable ſong. Thus much concerning my pꝛofeſſion I haue tolde, I truſt you that be my friends, will take it in good part, and now *PISCINARIVS* I reſigne my place to you, to whoſe turne it is come. The Swanne.

PISCINARIVS. It falleth out in good oꝛder, that from talking of Water Foules we ſhould come to entreat of Fiſhponds, Of Fiſh ponds.

and Fish: although I do meane to entreate largelyer both of keeping and taking of Fyshes in my *Halientycks*, but because the husbands house, both for watering of Cattell, and other vses, can not be without Ponds, and Lakes, and that euery house is not so seated, as it hath errable ground about it, it is lawfull for the husband to make his best aduantage of his Pondes, and Waters. The Noble men and Gentlemen of Rome, were woont to build about their Houses faire Fish Pondes, and many times satisfied heerein their pleasure, with exceeding cost and expences, as *M. Varro* writeth of the sumptuous and costly Fyshponds of *Hortensius*, *Hircius*, and *Lucullus*. *M. Cato*, when he had the wardship of *Lucullus*, made foure hundred pound of the Fish in his Pond. The same *Varro* maketh mention of two sortes of Fishpondes, the one of sweete water, the other salt, the one amongst the common people, where the syrinxes feede them, and of great profite, the other neere to the Sea, where *Neptune* doth yeelde them both store of Water and Fysh: for examples, may serue the Fyshpondes of *Hortensius*, which rather pleased the eye, then the Purse. The best making of Pondes, is either by the Sea, as *Lucullus*, who to let in the Sea into his Ponds, made a passage through the middest of a great hill, whereby he thought him selfe as great a Lorde of Fysh, as *Neptune* him selfe: or els to haue them from some great streame or Riuer, that may bring in both Water and Fish, which by Flud or Sluse, may let in alwaies fresh water, not suffering the olde to corrupt, but alway refreshing it, and bringing more Fysh. The next in goodnesse, are those that are fedde with pipes or secrete passage vnder the ground, and may be let out againe by Sluse, which Sluses must so be made, as when you list, you may let the water into your Medows, to make them more fruitefull, as is to be seene in the Countries of the *Swytches*, and *Heluetians*, and in many other places. And therefore the waters (as I sayde) must be well inclosed with good Bayes, Bankes, and walles, that they may be able to abide the rage of the floods and the water. The woorst and last kinde, is such as are made in lakes, standing pooles, raine waters. These kinde of pondes, though they be the woorst, by reason of their vncleane stinking and corrupt water, yet where there is no better, are to be made ac-

count

count of: for though they be not the holesomest for keeping of Fysh, yet they yeelde some commoditie, and are most necessarie about the house, either for watering of Cattell, keeping of Geese and Duckes, and washing, and other like vses: but if so be you can make them either by the Sea, or neere some great Riuer, so as the water may be lette in and out at your pleasure: and whensoeuer you open the Sluses, to let out the water. Be sure that you haue them well grated, that the Fish can by no meanes passe through, and lette the passage, if the place will suffer it, be made on euery side the pond: for the old Water will best voide, whensoeuer the streame bendes, the currant lye against it. These Sluses or Passages, you must make at the bottome of the Pondes, if the place will so serue, that laying your leuell with the bottome of the Pond, you may discerne the Sea, or Riuer, to lye seuen foote higher: for this *Columella* thinkes, will be a sufficient leuell for your Pond, and water enough for your Fish. Howbeit, there is no doubt, the deeper the water comes from the Sea, the cooler it is, wherein the Fishes most delight. And if so be the place where you meane to make your Pond lye leuell with the brim of the Sea, or the Riuer, you must digge it nine foote deepe, and lay your Currant within two foote of the toppe, and so order it as the water come in abundantly: for the old water lying vnder the leuell of the Sea, will not out againe, except a greater rage come in: but for the Pond that is subiect to the fludde and ebbe, it is enough if it be but two foote deepe. In the bankes and sides of these Pondes, you must haue Bushes and Creeke holes for the Fish to hide them in from the heate of the Sunne: besides, old hollow trees, and rootes of trees, are pleasant and delightfull harbours for Fish. And if you can handsomly conuay them, it is best to bring from the Sea, little Rockes with the Weeds and all vppon them, and to place them in the middest of your Ponds, and to make a young Sea of them, that the Fish may sharplie knowe of their imprisonment. About Turwan in Fraunce, and in other places, you shall finde in Loughes and Rayne Water, euen in the wildernesse and Heathes, great abundance of Fysh. In diuers places of the low Countreys, where they haue their Ponds fed with the Riuer, which they may shut out at their pleasure, they so order them, as they be either

enuironed, or deuided with deeper Ditches, wherein the Fish doth liue in the Summer time: and the rest of the ground betwixt the Ditches, the water being voided and kept out by Sluses and Banks, is sowed with Summer Corne, and after Haruest, the water let in againe, whereby the ground being wonderously enriched, doth yeelde great Croppes of Barley, and summer corne, and (as the Poet saith) for the land, so may be sayd for the water, *Not euery ground for euery seede*, but regard must be had, what for euery one meete. The Romanes keepe in their Ponds Lampries, Oysters, Luces, Mullets, Lamporns, Guyltheddes, and all other Fish besides, that are vsed to be kept in fresh waters. Ponds for Oysters, were first deuised by *Sergius Orata*, at the Baynes, about the time of *L. Crassus* the Orator, before the Battaile of *Marsie*, not so much for delicasie, but for his commoditie and gayne. Cocles, and Mulles, were kept in Ponds by *Fulvius Hirpennus*. Moreouer, diuers Fishes delight in diuers places. The best Pikes and Luces, were thought to be in the Riuer of *Tyber*, betwixt the two bridges: the Turbotes, at *Rauenna*: the Lampryes in *Sicyll*: so Riuers, Lakes, Pooles, and Seas, in some places haue better Fish, then in others. Where to returne to my Fishponds from whence I came, neither may all sortes of Fishes be kept in euery one, for some sortes are Grauellers, delighting onely in Grauellie, Stonie, and Sandie Waters, as Menowes, Gudgins, Bulheads, Ruffes, Trowtes, Perches, Lamporns, Creuishes, Barbils, and Cheuins. Others delight againe in Muddie places, seeking euer to lie hidde in the Mud, as the Tench, the Eele, the Breame, the Carp, and such others. Some againe delight in both, as the Pike, the Lure, the Carpe, the Breame, the Bleake, and the Roach. The Grauelly Fishes, specially the Menowes, are ingendred of Sheepes doung, layde in small Baskettes in the bottome of a Grauelly Riuer. The Luce, or Pike, groweth (as likewise doth the Carpe) to be great in a short time, as in three or foure yeeres, and therefore in such Ponds as haue neither the Sea, nor Riuer comming to them, we vse euerie fourth, or third yeere, to draw the old, and to store them with young. And in these parts we chiefely store them with Carp, hauing small Ponds, & Stewes for the purpose to keepe them in, so as they may come by them

at

at your pleasure. Thus much I thought good to declare vnto you touching my profession, let vs now see what you (*MELLISSEVS*) can say for your Bees, and your Hony.

MELLISSEVS. Because I will not haue our discourse of husbandry depriued and maymed of such a profitable member, whose vse may in all places, be they neuer so desert, or barren, be had, I thinke it good as a conclusion to the whole, to shew you for my part, the manner of keeping and ordering of Bees: for the good husband by cherishing of them, picketh out many times a good peece of his lyuing, yea the poore soule of the Countrey that hath no ground to occupie, may raise hereof and that without charges a great commoditie. *Merula* reporteth, that *Varro* had yeerely for the Rent of his Bees, a thousand gallons of Hony: and that in a house in Spaine, hauing not passing one Acre of ground to it, hath yeerely been made of the Bees, foure score pounds worth of Ware, and Hony. This little poore creature the Bee, doth not onely with hir labour yeeld vnto vs hir delicate and most healthy Hony, but also with the good example of their painefull diligence and trauaile, encorageth man to labour and take paines, according to his calling: in such sort, as it seemeth the Almightie and most excellent maiestie, hath of all other specially created this little poore creature, for the benefite and commoditie of man: by whom besides the commoditie of the Hony and Ware that they make, we might take both example to spend our life in vertuous and commendable exercises, and also to honour and reuerence the wonderfull bounty and goodnes of the most gratious LORD shewed towardes vs, in the creation of this small and profitable worme. They are continually busied in labouring, they shew great cunning and workmanship in their trauailes, they haue alwaies amongest them the liuely Image of a perfit common wealth, they yeeld obedience to their Prince, not liking the gouernment of sundry heads, but loue to be ruled by one: each one of them laboureth and trauaileth in his charge, in so much, as the wisest Gouernours and Councellours in Common weales, haue taken the Bees for their Patterne in chooling of Princes, distributing of Offices, rewarding of vertues, and punishing malefactors. *Varro* did alwaies call them the birdes of the Muses, and *Virgill* with wonder-

Bees.

Industrie of Bees.

Bees their common weales.

The birdes of the Muses.

full

full colours, doth eloquently set foorth the Bees, their common weale, Pallaces, buildinges, Cities, Lawes, maners, warres, and trauailes, supposing them to be partakers of reason, and that they haue some instinct from aboue, in that they so neare resemble the mindes of men, yea many times excell them, touching their obedience to their Prince.

Virgill. Not Egypt in his Prime, nor Lydia large and wide,
Ne yet the Parthian people great, nor all the Medes beside
Do so their king obey, who being safe and well,
There mindes are all together one, he onely beares the bell.
On him they cast their eyes, and gard him day and night,
And oft they beare him on their backes, in his defence they fight.
But if he chaunce to die, then all is dasht and done.
Their Coames a sunder downe they teare, and all to ruine run.

If the king be taken, the whole Swarme is had: if he be gone, they disperse themselues abroad, for they can not liue without a king, hating as well the bedlesse gouernment, as the subiection to many heads. If the king, or (as we terme him) the maister Bee die, the whole Swarme droupeth and mourneth, they straight waies cease from gathering of Hony, they sturre not abroade, but onely with a heauy and sorrowfull humming, they swarme and cluster together about his body. The nature surely of this poore creature is greatly to be wondred at.

Virgill. They onely of their broode haue a common care,
And neighbour like their houses nearely stand:
And ruled are by Lawes that none do spare,
Alone they know their home and natiue land,
And mindfull of the stormy Winter neere,
In Sommer get, to liue by all the yeere.

Their Princes pallace is sumptuously built, in some seuerall part of their Hiues, being mounted aboue the rest, which if you happen to roose, you destroy the broode. They liue all as it were in a Campe, and duely keepe their watch and ward, working together,

and

and oftentimes ſending abroad their Colonies, they are warned at their Captaines appointment, as it were with the ſound of a Trumpet, by which they know both their times of warres, and truce: they ward all the day time at their gates in warlike manner, and haue great ſilence in the night, till one of them in the morning humming out the diſcharge of the watch: they get them abroad to their buſineſſe, as the Poet hath eloquently expreſſed.

Virgill.

Together all they quietly doe lie,
Together all they toile with equall might:
And in the morning foorth together flie,
And home as faſt they come againe at night.
Where as they lay their wearie limbs to reſt,
And trim their wings, and ſet their legs in frame:
Till euery one him ſelfe hath throughly dreſt,
Then ſinging at their doores a while they game.
Till one giues warning for to go to bed,
Then downe they lay to reſt their ſleepie head.

For when the ſleepie time of the night comes in, they make leſſe and leſſe noiſe, till one of them goeth about with the like ſound that he gaue in the morning, ſetting as it were the watch, and giuing them warning to go to reſt: at which time they all ſuddenly hold their peace. In the morning (as I ſaid) at the diſcharge of the watch, they roame ſtraight to the gates, but flie not abroad, except they ſee the weather will be faire: whereof by nature they haue perfect vnderſtanding.

Bees foreſhewing of ſtormes.

Nor from the Hiues, if likely it be to raine,
They far doe ſtray, nor truſt they will the skie:
If that the Southwind blow, but ſtill remaine,
At home, or buſied be with waters nie.
Short flytes they make, and when ſuch ſtormes they ſee,
They beare about the ſmalleſt ſtones they find:
And as the Boates in ſtuddes that balaſt bee,
So with the ſame they counterpaiſe the wind.

Being

Being loded, they flie with the winde: if any tempest suddenly arise, they counterpaise themselues with little stones, flying in the winde as neare the ground as may be: their labour, both at home, and abroad, is certainly appointed. They labour at the first, within the compasse of threescore paces about the Hiue, and when the flowres there haue been sufficiently wrought, they send abroad their discouerers to find out more foode. And when they fall all together to their businesse, some worke the flowers with their feet, others carry water with their mouthes, and droppes in their little fleeses: the yoong lustie fellowes labour abroad, the elder at home. Those that goe abroad, doe with their forelegges lade all their Thighes, which nature for the nonce hath made rouffe: thus being loaded, Legs, Head, Backe, and all, as much as they may beare, they returne home, where there waiteth commonly three or foure at the doore to vnloade them. Within, all this while are some laying in order, some building, some making cleane, and some making readie their meate: for they feede not seuerally, for feare of beguiling one the other. They frame their houses archwise within the Hiues, with two passages, so as they may enter one way, and goe out an other. Their coames that they make are wrought full of holes, which holes (as *Varro* saith) are their Celles or lodgings, made euery one fiue square, according to the number of their feet: these Celles they doe all fill with Hony, filling euery one in a day or two. These coames are fastned to the vpper part of the Hiue, and hang little vpon the sides, not cleauing to the Hiue, being now cornered, now round, according to the fashion of the Hiue, as both *Plinie* reporteth, and I shall hereafter shew you, when I speake of the framing of the Coames. The Coames are kept vp from falling, with small pillers and props below, so built as they may goe round about to repaire them. The three first lofts of their Celles beneath, are left emptie for feare of the Hiue: the vppermost are as full as may be. Such as are loiterers and idell vagabonds amongst them, are noted, and punished with death.

The punishment of loiterers.

Some range for foode and plie the feelds abroad,
Some still at home doe labour busilie:
And round about with waxe the Hiues doe loade,
Which from the gummes they painfully doe trie.

The

The first foundations for the Coames they make,
And clammy cleauing Wax they fasten by:
While others of their broode the charge doth take,
And fosters vp the seede that shall supply.
An other sort doth worke the Hony pure,
And fils the Celles with licour that you see:
And others are appointed to the doore,
To looke abroad what weather is like to be.
Or to vnload such as haue laboured well,
Or els to driue the drousie Drone away:
Their labour smokes and all of time doth smell.
The Hony sweet that in their Coames they lay.

And a little after.

The great do guide the Hiue,
Make fast the Coames and Pallaces contriue.

CHENOBOSCVS. Of the worthinesse, trauaile, workmanship, and good order of this little creature, you haue sufficiently spoken, it now remaines that you declare vnto vs their sundrie kindes, their keeping, and their ordering.

MELLISSEVS. *Aristotle* maketh many sortes and kindes of them, whereof he counteth the short speckled and well knit to be best: and next to them, the long ones like Waspes: the third, the kind that they call the Theefe, with a very large bodie: the fourth, the Drone, being bigger then all the rest, wanting both his sting, and courage to labour: and therefore they vse to make at the entrie of their Hiues small Grates, wherein the Bee may enter, but not the Drone. And the same *Aristotle* in the chapter before saith, that there are two kindes of kings, or maister Bees, the one of a golden colour, which is counted the best, the other blacke, and more party coloured: they be twise as bigge as the other Bees, the tayles of them as long as one and a halfe of the other, they are called of some, the mother Bees, as the cheefe breeders, because the yoong of the Drones are bred without a king, but the other Bees neuer. *Virgill* following herein *Aristotle*, both

The kindes of Bees.

The Theefe.

The Drone.

Breeders.

The best sort of Bees.

doth most commend the little, long, smooth, and faire Bee, and making mention of two sortes of kinges, the woorser whereby he shall do no harme.

The shape of their king.

Destroy (saith he) and let the other liue,
Whose golden hewe doth glister in the eie:
And decked with glittering skales faire shewe doth giue,
Of far more grace, and far more maiestie.
With lothsome looke the other doth appeare,
And dragling drawes his taile with heauie cheare.

And as there is two sortes of kinges, so is there of the other Bees.

Some ougly seeme, and some againe doe shine,
Bedasht with drop of golden colour fine.

Being milde and gentle: for the Bee the greater he is, the woorse he is, and if he bee angry, and fierce, and round, he is woorst of all. And because (as I said before) the best are onely to be medled with, sith the good and the bad are alike chargeable, and require like tendance, and speciall heede to be had that you meddle not the bad with the good: for lesse will the encrease of your Hony be, if some of your Swarmes, be ill matched. You may store your selfe with Bees three maner of waies, either by buying them, taking the wilde Swarmes, or making them by art. Such as you buy,

What to be considered in bueing of Bees.

let them be of the kind and shape that I told you of, and be sure before you buy them, that the Swarmes be whole and great, which you may iudge by looking into the Hiue, or if you can not be suffered so to doe, you may gesse it by other tokens: as if so be you see great numbers clustering at the doore of the Hiue, and if you heare a great buzzing and humming within: or (if they be all at rest) putting your lippes to the mouth of the Hiue, and blowing therein, you shall easily perceaue by their answearing sound, whether their number be great or no. In buying them beside, you must looke whether they be sound, or sicke: the signes of their being in health (as shall be shewed when I speake of their diseases) is, if their Swarmes be great, them selues faire, and well coloured, and

woorke

worke lustily. Againe, a token of their not beeing well, as if they be hearie, looke lothsomely, and dustilie, except at such time as they labour: for then they waxe leane and rouffe, with extreame trauaile. You must make your coniecture likewise by their age, such as are not aboue a yeere olde, looke faire and smooth, and shine, as if they were oyled: the old ones are both in sight and feeling, rouffe and rugged, and by reason of age, wrinckled: which neuertheles for cunning in making their Combes, experience, industrie, and skilfulnesse in the weather, doe farre passe the others. In any wise see that you buy them rather from your nert neighbour, then from a strange Countrie, or far off: for they many times perish by change of aire, or shaking in the carriage. And if you be driuen to carry them far, take heede you neither iogge, nor tumble them: the best way to carry them, is vppon a mans shoulders, and that in the night time, suffering them to rest in the day, and pouring into them such sweete thinges as they delight in, and keeping them close. It is better remouing them in the Spring, then in Winter: for they do not so well agree with Winter. If you carry them from a good place, to a barraine, they will straightwaies bid you farewell, and forsake their Hiues. When you haue brought them to the place where you meane they shall stand, if it be day time, you must neither open them, nor place them till it be night, to the end they may after the quiet rest of the night, go cheerefully to their worke the nert morning. Be sure to marke them well besides for two or three dayes after, whether they go all out or no: for if they doe, it is a shrewde signe they will away. Sometime, if the place be good, you shall assay to store your selfe with wilde Bees: for although that Bees (as *Plinie* saith) can not be rightly termed either wilde, or tame, yet *Varro* calleth them wilde, that breede in wilde places, and tame, such as wee keepe at home: and affirmeth the maner of keeping them to be diuers. There is great store of the wilde sort in *Sarmatia*.

Transporting of Bees.

The taking of Bees.

PVLLARIVS. They say, that in *Liuonia* and *Sarmatia*, (from whence is brought hither great store of Ware, and Hony,) the Countrey people doe gather it in great abundance in hollowe trees, and desart places.

MEL-

MELLESSEVS. The greatest token of Bees, and Hony neere, is where they be in great numbers about the waters: for if you see the number but small, it is a signe it is no good place for Bees, and if so be you see they come in great numbers, you may soone learne where the stockes be, in this sort, as *Columella* and others haue taught. You shall carry with you in a saucer, or such like thing, some redde colour, or painting, and standing neere to springes, or waters there aboutes, as fast as they come, touch them vppon the backes while they are a drinking, with some little straw dipped in the colour: and tarry you there till such time as you see them returne. If the Bees that you marked doe quickly returne, it is a token their houses be not farre off, if it be long ere they come, it shewes they dwell farther off: wherefore you may iudge by the time. If they be neere, you shall easily find them, if they be farre off, you shall come to find them in this sort: take a peece of a Reede, or a Key, with his knots and iointes, and making a small hole in the side, powre into it either Hony, or some sweete thing, and lay it by the water: and when you see the Bees haue found it, and entered the hole for the sauour of the Hony, stop you the hole with your thumbe, and let but one go out at once, whose course you shall follow, as farre as you can see him: and this shall bring you part of the way. When you can no longer see him, let out an other, and follow him, and so an other, one after an other, till you come to the place. Others vse to set some litle vessels with Hony by the water: which, when some one Bee or other hath happened to taste, she giueth straight knowledge to hir fellowes, wherby by their flying in number, they come to finde out their dwellings. If you finde the swarme to be in some such hole as you cannot come at them, you shall driue them out with smoke, and when they be out, bring them downe with the ringing of a latten bason, so as they may settle vppon some tree, from whence you shall shake them into your hiue. If the swarme be in some hole aboue in the branches, you may sawe off the branch handsomely, and couering it with a white cloth, place it amongst your hiues. If they be in the bodie of the tree, then may you softly sawe off the tree aboue the Bees, and afterward, close vnderneath them: and being couered as before, carry them home, stopping well the chinkes, and riftes, if

To find out the Bees.

there

there be any. He that seeketh the Bees, must begin in the morning, that he may haue the whole day before him to marke their labouring. Thus farre of the kindes of Bees, and getting of them: now will I shew you of the placing of them, ordring and keeping of them. The place for your Bees and your hiues must be so chosen, as they may stand quietly, and secret, standing specially in such place, as they may haue the Sunne in winter, and in the spring time alway at the rising, and such as is neither too hot, nor too cold: for the excesse of either, doth hurt them but rather temperate, that both in Summer and Winter, they may haue moderate warmth, and holsome aire, being farre remooued from the companie of either man, or beast. Standing for Bees.

Where neither winde may come, whose blasts forbids
Them bringing home their loade, nor Sheepe, nor wanton Kids.
To spring among the flowers, nor warding best,
Shake off the dew, and trampling spoile the rest.

For they most of all delight in quietnesse: beware beside, that there be no hurtfull creatures neere them, as the Tode, that with his breath doth both poison the Bee, and also drayweth them to him, the Woodpecker, the Swallow, the Sparrow, the Storke, Spiders, Harnets, Butterflyes, Serpents, and Mothes. What vermine annoyeth the Bees.

Driue from thy Hiues the hurtfull Lysart greene,
Keepe Throstles, Hennes, and other birdes vntrew:
And Progne, on whose brest as yet is seene
The bloodie marke of hands that Itys slew.
All these destroy thy Bees, and to their nests doe beare
Such as they take in flight, to make their young ones cheare.

Of such things as hurt your Bees, I will hereafter speake more, where I shall shew you of their diseases and harmes: in the meane time I will goe forward with the placing of them. The place where they should stand, would rather be in the valley, then very hie: but so as the rebound of no *Ecco* doe hurt them, which sound is verie noisome vnto them: so shall they flee with more ease and speede to the higher places, and come laden downe againe with lesse trauaile. If the seate of the house will so suffer, it is good to haue your Bees stand neere your house, and to be enclosed with a hedge, or a pale: but on such side as they be not annoied with the The valley better for the Bee, then the hill.

ſent of ſinke, priuie, or doungehill. The beſt ſtanding, is within the ſight of the maiſter, by whoſe preſence they are ſafeſt kept. For their better ſafety (if you feare them) you may ſet them a yard or more from the ground, encloſing them with little grates left open againſt euerie Hiue, or ſo lettiſed with ſtone, as the Bee may eaſely come out and in, and ſcape both Birds and water: or if you liſt, you may make a little houſe by for the keeper, wherin you may lay your hiues for your ſwarmes, and other neceſſaries meete for your Bees, ſetting neere to the Hiues ſome ſhadowing Trees for them to ſwarme vpon, according to the Poets aduiſe.

And plant the Date tree neere, or pleaſant Oliue tree,
That with their floury branches ſweet, thy hiues may ſhadowed be:
That when the captaines young, leade out their luſtie ſwarmes,
The pleaſant ſhade may them allure, to ſhun the greater harmes.
Not needing for their eaſe, in places far to roame,
When as they may more ſafely ſit, and better ſpeede at home.

Faire water neceſſarie for Bees.

If it may be, let them haue ſome faire ſpring neere them, or elſe ſome water conueied in pipe: for without water they can neither make Hony, Ware, nor breed vp their young: and therefore ſaith the Poet.

Haue fountaines ſweet at hand, or moſſy waters greene,
Or pleaſant brooke that paſſing through, the meads is ſweetly ſeene.

And ſtraight waies after.

If either ſtanding poole be neither to them nie,
Or running ſtreame with haſty courſe, their dwellings paſſeth by,
Caſt bowes of Willow croſſe, and mightie ſtones withall,
That may preſerue the fainting Bee, that in the flud doth fall.

Round about the Beeyard, and neere to the hiues, ſet hearbes, plants, and flowres, both for their health, and profite: ſpecially ſuch as are of the ſweeteſt and delicateſt ſauour: as *Cithyſus*, Thime, *Caſſia*, Roſemary, Sauery, Smallage, Violets, Sage, Lauender, Myrrhe, wilde Marierum, wilde Thyme, Balme, ſweete Marierum, Saffron, Beanes, Muſtardſeede, Poppey, Melliot, and Roſes. And if there lie Ground neere it for the purpoſe, ſowe it with Rape ſeede, and Beechwheate: for they wonderfully delight in the flowres hereof. *Plinie* writeth, that Bees delight greatly to haue broome flowres neere them: of trees, they moſt delight in

Hearbs that Bees delight in

theſe.

these. The Pine, the Willow, the Firre tree, the Almond, the Peach, the Peare tree, and the Apple, and such as the flowres thereof be not bitter. Of the wilde sortes, the Terebinth, the Lentise, the Lindtree, the Cedar, and the Maistholme. The best Hony (as *Palladius* saith) is made of Time: the next of wilde Time: the third, of Rosemary. You must remoeue from your trees, Yew tree, the Bore, and the Cornell: *Plinie* would also haue the Olive away. Banish also all the kindes of *Sporge*: for with that, as also with the flowres of the Cornell, they fall into a Flixe and die. Besides you must suffer no Woormewood, nor wilde Coucumber to growe neere them: for they both destroy the Bees, and spoile the Hony. And because the flowre, or fruit of Elmes doth specially hurt them, therefore in such partes of Italy where plenty of Elmes growe, the Bees do not long continue. Touching your Hiues, they are made of diuers fashions, according to the maner of the Country. Some are made round, some square, some three foote in height, and one in breadth, made verie narrow toward the top, least the Bee should ouerlabor themselues in filling of them. Some make their Hiues of Lanterne horne, or Glasse, to the end (as *Plinie* saith) that they may viewe the maner of their working, *Varro* maketh mention of earthen Hiues well plaistered within and without with good Ore doung, so as the roffenesse and ruggednesse cannot displease them: but for all that, the earthen Hiues be the worst that may be, because in Sommer they be too hot, and in Winter too colde. The best Hiues, are those that are made of Corke wicker, or rindes of trees, because they keepe out both cold and heate: the next are such as are made of Straw & Bents matted together, two foote in bredth, and so much, or more, according to the number of your Bees in height. In some places they make them of one peece of wood, cut and hollowed for the nonce, or of ioined boordes, fiue or sixe foote in height, and these neither are too hot in Sommer, nor too cold in Winter. Of these woodden Hiues, the best are those that are made of the Figge tree, Pine, Alhe, and Wallnut, of such length (as I told you) and a cubite in bredth. Besides, they would be couered with either Lime, or Ore doung: for so (saith *Florentine*) you shall keepe them long without rotting. You must also bore them through slopewise, whereby ỹ wind gently entring, may dry vp all cobwebs,

Hearbs noisome to Bees.

Of the Hiues.

or such like noiances. You must alwaies haue good store of Hiues lying by you, that may be remooued, and easily carried where you list: for the fixed, or standing hiues, be discommodious, as which you can neither sell, nor remooue: though *Celsius* seeme to commend the standing hiues, because they are neither subiect to stealing nor burning, being made of Bricke, or Loame. Your hiues (as *Columella* out of *Celsius* doth teach) must stand vpon some table of stone, a yard from the ground, and so much in breadth, so smoothed and plaistered, as neither Toade, Euette, or Snake may creepe vp: and in such order they must be placed, as there may be betwixt euery one a little wall, or partition, being open both before and behind. If you haue no such partitions, then place them so, as they be a pretty way distant one from the other, that in dressing and looking to any one of them, you shake not, nor hurt the other: for a little iumbling doth soone marre all their houses, and many times spoile the Bees. It is enough to haue three rankes of them, one aboue the other: for the keeper shall haue enough to doe, to ouerlooke the vppermost. The part where the Bee doth enter, must stand a little lower then the hinder part, so as the raine can not runne in, and the water (if there be any) may easely voide. And because cold doth more annoy the Bee, then heate, you must arme your Hiues well behinde, against the hurt and bitternesse of the North wind, and let the sunne come bountifully to them in the Front. And therefore it is best for you to make the holes where they come in and out, as small as you may, that they suffice onely for the bignesse of the Bee, partly for auoiding of cold, and partly to keepe out Euets, Beetels, Butterflies, Battes, Mothes, and such other hurtfull vermine, that would otherwise destroy the Combes: wherefore it is good you haue two or three such small hoales together in euery hiue, for the commoditie of the Bee, and restraint of the enemie.

How you must place your Hiues.

PVLLARIVS. Well, I pray you let vs know when the Bee beginneth to labour, and when he ceaseth.

MELLISSEVS. Because I haue declared vnto you before their toile, their diligence, and order of their trauaile, I will now likewise shew you what time they begin to labour. In the winter time, from the setting of the seuen Starres, till the beginning of the

the ſpring, they keepe their houſes, and come not abroad, by reaſon of the cold: in the ſpring, they come ſtraight abroad, and from that time forward (if the weather let them not) they neuer reſt day. First of all, they frame their Coames, and war, that is, they make their houſes and chambers, whereof they make ſo many, as they thinke themſelues able to fill: then fall they to breeding, and laſt of all, to making of Honie. Their Ware, they make of the flowres of trees and plantes: their Honie, of the gummes and clammineſſe of trees that are glewy, as Willow, Elmes, Reede, Iuice, Gumme, and Rozen: *Ariſtotle* ſaith, they make their Coames of flowres, their War, of Gummes, and their Honie, of the dew of the ayre, that falleth chiefely at the riſing of the ſtarres, and that there is no Honie made before the riſing of the ſeuen ſtarres, and their Coames of flowres, and that the Bees do not of themſelues make the honie, but onely geather the honied dew that falleth, becauſe the keepers finde the Celles to be filled in ſome one, or two daies: and that the honie being taken away in the end of Summer, the Hiues are not found to be furniſhed againe: though there be flowres enough at that time. This, and much more hereof (ſaith *Ariſtotle*) whome *Plinie* following him, affirmeth Honie to be made of the ayre moſt of all, at the riſing of the ſtarres, chiefely the Dogge ſhining out early in the morning: therefore you ſhall finde in the morning betimes, the leaues of the trees bedewed with Hony, as you ſhall likewiſe haue the Apparaile, Heare, and Beards, of ſuch as haue been early abroad. In the morning, our common people call it Manna, or Hony dew, cleauing to the leaues before the riſing of the Sunne as it were Snow, or rather Candied Suger. Whether it be the ſweat or excrement of the Heauens, or a certaine ſpittle of the ſtarres, or a iuyce that the ayre purgeth from him ſelfe, how ſo euer it be, I would to God it were ſuch as it firſt came from aboue, and not corrupted with the vapours and damps of the earth. Beſides, being ſucked vp from the leaues by the Bees, and digeſted in their Mawes (for they caſt it vp at their mouthes) and alſo diſtempered with the ſent of the flowres, ill ſeaſoned in the Hiues, and ſo often altred and tranſformed, looſing much of his heauenish Vertue, hath yet a pleaſant and a ſpeciall celeſtiall ſweeteneſſe in it. The beſt Hony is of Time (as I haue ſaid

When the Bee reſteth.

The beginning and order of his trauaile.

Manna.

The beſt Hony of Time.

said before) and good likewise of *Cithisus*, of the Figge tree verie pleasant: *Varro* saith, they take not their sustenance, and their Honie both from one. A great part of their foode is water, which must be farre from them, and must be very cleane: which is greatly to purpose in making of good Hony. And when euery season suffereth them not to be abroad, they must at such times be fed, least they should then be forced to liue all vppon the Honie, or to leaue the Hiues emptie. Some geue vnto them Water and Honie sodden togither in little vessels, putting into it Purple Wooll, through the which they suck it, for feare of drinking too much, or drowning themselues: others, dry Figges, either stamped by themselues, or mingled with water, or the drosse of Grapes, or Reasons mingled with sweete Wine, and tosts made therewith, or with Hony: yea I haue seene some vse (but in my fansie without reason) to giue them Bay salt. Moreouer, as the Bees require great looking to continually, and their hiues daily attendance, so most of all they craue diligent regard, when they are about to swarme, whereunto if you haue not a great good eye, they will bidde you farewell, and seeke a new Master. For such is the nature of Bees, that with euery Prince, is bredde a common wealth, which as soone as they are able to trauaile, doe as it were disdaine the gouernment and fellowshippe of the olde Bee, which most happeneth when the swarmes be great and lusty, and that the old stagers are disposed to send abroad their Colonies, and therefore you shall by two tokens specially knowe, when the new Princes with their people will abroad. The first, when as a day or two before they cluster and hang (specially in the euening) about the mouth of the Hiue, and seeme to shew by their comming out, a great desire to be gone, and to haue a kingdome and countrey by them selues: which, if you prepare them at home, they content them selues very well with it. And if the Keeper prouide not for them, taking them selues to be greatlie iniuried, they depart, and seeke a new dwelling. To preuent this mischiefe, *Columella* willes you to looke diligently to them in the Spring time about eight of the clocke, or at noone: after which hours, they commonly goe not away, and to marke well their going out, and comming in. The other signe is, that when they are readie to fly, or going, they make a great humming

Bees, their winter foode.

Going away of Bees, and the tokens thereof.

ming and noiſe, as ſouldiers readie to remoue their campe. At their firſt comming out, they flye aloft playing vp and downe, as it were tarrying for their fellowes, till all their companie come. Yea, many times the old inhabitance, being wearie of their dwellings, doe leaue their Hiues which is perceiued when they come ſo out, as none remaine behinde, and preſently mount into the ayre, then muſt you fall to ringing of Pannes and Baſons, to feare, or bring downe the runawaies, who being amaſed with the great and ſuddaine noiſe, do either preſently repaire to their old Hiue, or elſe knitte themſelues in ſwarme vpon the branch of ſome tree neere to the place: then muſt the keeper out of hand be readie with a new Hiue prepared for the purpoſe, and rubbed with ſuch hearbes as the Bee delights in, or ſprinckled with little droppes of honie (I haue ſeene in ſome places vſed Creame) and ſo ſhaking them into the Hiue, and couering them with a ſheete, let him leaue them till the morning, and then ſet them in their place. He muſt (as I told you before) haue diuers new Hiues in a readineſſe to ſerue the turne withall. And if ſo be you haue no Trees nor buſhes growing neere the Hiues, you muſt thruſt into the ground certaine bowes and branches for the purpoſe, whereupon they may knit and ſettle themſelues, and rub ouer the bowes with Balme, or ſuch pleaſant hearbes, that when they (as I ſay) knit and ſettle, putting vnder the Hiue, and compaſſing them with ſome little ſmoke, you may cauſe them to fall into a new countrey: for they will rather goe into a new Hiue, then into an old: yea, if you offer them the Hiue that they came from, they will forſake it for a new. Some of them will ſodenly leaue the hiue without any tarrying, which the keeper may perceiue, if he vſe to lay his eare in the night time to the hiues: for about three dayes before they goe, they make a great noyſe, like ſouldiers ready to rayſe their campe: which *Virgil* noteth.

Bees delighe in new Hiues.

Signes of ſuddaine departing and remedies.

Their minds are eaſely knowne for ſuch as ſtray,
The braſen ſound commaunds to come away,
When through them all a warning voyce is ſent,
That doth the warlike Trumpet repreſent.

And therefore when ſuch noiſe is heard, they muſt be verie well watched, whether they come out to fight, or to flee, the keeper muſt

be at hand: their fights, whether it be among themselues, or one hiue with an other, are easely stickled.

A little dust cast vp on hie,
Doth end the quarrell presentlie.

Or honied water, sweete wine, broath of Reasons, or any pleasant licour, wherein they delight, cast and sprinckled amongst them, doth straightwaies part them. The selfe same remedies makes two Princes of them, being fallen out, to be quickly good friends againe: for when there happeneth many times to be in one hiue sundrie Kings, by whose dissention the whole number of the subiects in the princes quarrels, goe together by the eares, you must by all meanes seeke to remedie it, least by ciuel dissention, the poore people be destroyed. And therefore, if you perceaue them often to fight, your best is to kill the heddest of the dissention, and to appease the fury of the fighters, by those meanes that I told you before. And when the marciall swarme is setled vpō some branch of a tree, looke if they hang all togeather like a cluster of Grapes, which is a signe, that there is either but one king, or if there be moe, they be agreed: & then you shall not trouble them, but take thē into the hiue, but if so be they hang in two or three clusters, like the pappes, or vdders of a beast, it is a signe there are diuers master Bees that agree not together: for which you shal search, where you see the Bees to cluster most. Therefore annointing your hands with the iuice of Balme, or Beewort, that they may abide you, thrust in your fingers softly amongst them, & shedding the Bees, search well till you haue found the ringleader of the dissention, whom you must take away.

Diuers kings in one Hiue.

The shape of the King.

What the proportion & shape of the king is, I haue told you a little before, that is, something longer then the other Bees, and lesser winged, of a faire and glistering colour, smooth, and without sting. Howbeit, some of them be shagheard, and ill coloured, which are naught, and to be killed. *Let the best (as he saith) weare the Crowne,* who must himselfe also be depriued of his wings, if he be too busie headed, and will alwaies be carrying his people abroad. So shall you with the losse of his sailes, keepe him at home spite of his teeth, while he dare not for want of his wings venture out of the doores, & so shall he keepe his people at home. *Dydimus* writeth, ỹ your Bees wil neuer go away, if you rub ỹ mouth of your hiue with the doung of

To keepe the king at home.

of a new calued calfe. To the same end serueth it, if you stampe the leaues of wilde Oliues, and Garden Oliues together, and annoint the Hiues in the euening there withall, or if you wash the Hiues and the wals with hony sodden in water. When an olde stocke is come to a small number, & that there be not Bees enough to furnish the Hiue, you must supply the want with a new swarme, destroying the king of the first swarme in the Spring, so shall both the swarmes dwell together in amitie with the old Parents, as shall be shewed you hereafter, where I meane to speake of repairing the stocke. The Sommer being past, ensueth the time for taking of Hony: to which harueſt the trauaile of the whole tendeth. The time for gathering therof, *Columella* teacheth to be then, when we perceaue the Drones to be driuen out & banished by the Bees: for, thence they *Driue the drousie Drone away*. This Drone is an vntimely birth, and an vnperfect Bee, but very like vnto the Bee, saue that he is bigger bodied, lying alwaies idle in the Hiue, not labouring himselfe, but feeding like a lubber of the sweat of his fellowes, yet serueth he for the breeding and bringing vp of the yoong: which when he hath done, they thrust him out of the hiue, *Varro* appointeth three seasons for the taking out the Hony: the first at the rising of the seauen starres: the second, in Sommer: the third, at the setting of the seauen starres: this signe is when the Hiues be heauie, and that they be double furnished. You may make your coniecture by the Bees, when they make great noise within, and when you see them stand dauncing, and playing at their doores, as also if looking into the Hiue, you perceiue the mouthes of the Coames to be couered with a Hony filme. *Dydimus* thinketh it to be the best time for the first harueſt, the rising of the seauen starres, or the beginning of May: the second the beginning of Autumne: the third, the setting of the seauen starres, which is about October. Howbeit, these times be not alwaies precisely to be obserued, but according to the forwardnesse of the season: for if so be you take the Hony before the Coames be readie, they take it ill, & presently leaue working. The time for gelding, or driuing your Bees, is earely in the morning: for you must not at noone trouble your Hiues. For this kind of gelding of your Hiues, you must haue two instruments for the nonce, a foote and a halfe long and more: the

Gelding or driuing the Hiues.

The Drone.

Time for taking the Coames.

one

one of them must be a long knife of a good breadth, hauing at the end a bending crooke to scrape withall: the other must be plaine, and very sharpe, that with the one you may cut the Coames, and with the other scrape them, and draw out what soeuer Dregges or filth you find in them. And if your Hiues be not open behinde, you shall make a smoke with *Galbanum*, or dry doung, being put into an earthen pan made for the purpose, small at the one end, from whence the smoke shall come, and broad at the other, from which you shall blow vp the smoke from the fire, in such sort, as *Columella* sheweth you. This pot you must suffer at the first, to smoke into the Hiue, and afterward round about without, and so shall you driue them. He that medleth in this case with the Bees, must specially keepe himselfe from lecherie, and drunkennesse, and wash himselfe cleane: for they loue to haue such as come about them to be as pure and cleane as may be. They delight in cleanlinesse, so much, as they themselues doe remoue from them all filthinesse, suffering no filth to remaine amongst their labors, raking vp in heape together the excrements of their owne bodies, which in the rainie daies, when they worke not abroad, they remoue and throwe out of the Hiue. If you set Garlicke by them they will sting all that come neere them. Their anger is cheefely allwaged by the presence of those that vse to tend them, at whose comming they waxe wilder, being well acquainted with those that are their keepers. If there be two swarmes in one Hiue, and agreed together, they haue two sortes and maner of Coames, euery swarme obseruing his owne order, but all the Coames so hang by the rooffes of the Hiues and sides, as they touch not the ground where the Bees vse cheefely to walke, as I said before in their building of their Coames. The fashion of their Coames, is alwaies according to the fashion of their Hiues, sometimes square, sometime round, sometime long as the Hiues are, in which they are fashioned as in a mould. *Plinie* writeth, that there were Honie Coames found in Germanie, of eight foote in length, but howsoeuer they be, you must not take them all out, but must vse discretion in taking of them. Amongst our people in the first Bee haruest (if I may so term it) they vse with their crooked knife, to pare away no more but the emptie Celles, till they come to those that be full, taking heede that

Bees hate sheeues and vncleane persons.

Fashioning of the Coames.

that they hurt them not: and this they doe in the Spring. In the latter haruest, that is, at the end of Sommer, they take the Coames full of Honie, in such sort, (as I told you) burning the old Bees, and alway keeping and preseruing the yoong swarmes. In the first taking, when the Meadowes are full of flowres, they leaue the fift part of their Coames behinde: in the latter haruest, when Winter approcheth, they leaue a third of their Coames, for the sustenance of the Bee. But this quantitie can not certainly be prescribed for all countries, but must be measured according to the abundance, or want of flowres. *Dydimus Thaseus*, thinketh good to leaue them a tenth of their Coames in the Sommer time, if the Hiues be verie full, otherwise, according to the proportion: and if they be emptie, not to meddle with them. *Plinie* would not haue the Honie of the Spring time (which he calleth flowre Honie) to be medled withall, but to be spared. Others leaue no Honie at all for them, because of the aboundance of flowres that are then springing, which is the cheefe foundation of their Coames. Such as beskilfullest, doe leaue the Bees a twelfth part of their labour: and this they doe about a thirtie daies after the swarme, which they make an end of commonly in May. The old and the corrupt Coames, are for the most part at this time taken away, and the sounde, and such as are filled with Honie, left: in taking of the Honie at the latter time of the yeere, they vse to destroy the oldest stockes, to saue the charges of feeding of them. This driuing and gelding of Hiues, is not commonly vsed in the Countrey, but they rather according to their custome, at the end of the yeere burne them, alleaging for their authoritie an old English Prouerbe of their owne.

Driue Bees, and loose Bees: burne Bees, and haue Bees:

And in some places they drowne them. When you haue thus spoyled your Hiues, you shall carry all your Coames into some handsome place, where you meane to make your Honie, and stop vp all the holes and creuisses of the walles and windowes, as close as you may: for the Bees will bee very busie to recouer the praie. Your Hiues beeing thus driuen, if there be any ill placed Coames at the entrie, you shall alter them, and place them in good order, so as the toppes stand downe ward, so when you next geld them, you shall easlier take out the olde Coames, and leaue the new,

new, and the ware shall be the newer: which the older it is, the woorse it is. Whensoeuer you take your Coames, looke that you straine out the Hony the same day, while they are hotte and new. The Hony that you take at the full of the Moone (as *Plinie* saith) yeeldeth most, and the fayrer the day is, the thicker it is. The Coames being taken out, let them rather be warme, then heated, least by ouer heating them, you straine out the Ware with the Honie: afterward, put them into a good strong bagge, and with a Presse, or other instrument made for the purpose, or with a Wicker basket, presse out the Honie, but see that before you presse it, you seuer from it such Coames, as haue in them yoong Bees, called with some Grubbes, or any red, or ruskie drosse: for these with their euill iuice corrupt the Honie. When the Honie is thus strained out, it is put into earthen vessels, and suffered to stand vncouered a few daies, till it haue wrought, and cast vp aloft all his Dregs, which you must often skim off with a little sticke: but in many places they are not so curious, but tumble all together, and so sell it grose as it is. The best Honie is alwaies in the bottome, as the best Oyle aloft, and the best Wine in the midst.

CHENOBOSCVS. What Countries yeeldes the best Hony, and which count you best?

The best Hony.

MELLESSEVS. The best Hony was in the old time thought to be in *Athens*, and in *Cyeill*: it is now thought very good that commeth from *Moscouia*, and the North east Regions. The Hony at the beginning is thinne as water, and after the straining, it worketh like new Wine, and purgeth: at the twentieth day, it waxeth thicke, and afterwardes, is couered with a thinne rine, or filme, where the froth of the purging is gathered together. The best Hony, and least infected, the Bees do gather from the leaues of the Oke, the Lindtree, and the Reede. There is three sortes of Hony, the best kind is that which is called *Anthim*, or flowre Honie, made in the Spring time: the next, is Sommer hony, or hasty hony, made in thirtie daies after the tenth of June, when the Dogge beginnes to come in: the third is Heath hony, a wilde kind of hony, and not allowed, being gathered after the first shewers of Autum, while the heath is in flowre: and therefore like the Sandie hony. The best hony (as *Diophanes* saith) is cleare, yellowish, smooth,

Three sortes of Hony.

ſmooth in touching, and fine, roping, if it be drawen in length, and long, ſticking together, clammy, and hard to be got a ſunder: the Hony that is of the worſt making, is to be boyled. Bread, if it be dipped in it, doth ſtraight corrupt it, and therefore take heede you put it not where bread hath been. The fragments of the Combe that haue once been preſſed, being taken out, heated, and ſtrained againe, do make a ſecond hony, which you muſt put vp, and keepe by it ſelfe, for ſpoyling of the other. Naughtie, and counterfeit Hony, is diſcerned by the burning, for the ill hony burneth not cleare, as the ſaid *Diophanes* witneſſeth. The droſſe that remayneth, after the preſſing, after that you haue diligently waſhed it in ſweet water, muſt be put in a Braſſe caldron, and putting a little water thereto, melted vpon the fire, which when you haue done, you muſt ſtraine the Waxe through a Siue, or ſuch like thing made of Straw, or Ruſhes: and after ſeeth it againe, and powring it into ſome veſſell with water, from whence you may eaſily take it, make it vp in cakes, or what faſhion you like. *Plinie* writeth, that the Combes muſt firſt be waſhed well, and afterward dried in the darke, for the ſpace of three daies, and the fourth day ſet vpon the fire in a new earthen veſſell, ſo as the Combes be couered with water, and then ſtrained through a Ciue: laſt of all, boiled againe in the ſame veſſell, and the ſame water, and poured into veſſels with cold water, hauing their ſides nointed with Hony. The Waxe will be very white after it hath ſtood in the Sunne, and been twiſe ſodden: you ſhall make it blacke with the aſhes of Paper, and being mingled with Vermillion, it will be red, and ſo otherwiſe coloured as you liſt.

Bread corrupteth Hony.

The making of Waxe.

CHENOBOSCVS. If in the making of your Hony your Bees be almoſt conſumed, what wayes haue you to repaire them?

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The repairing of them.

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Bees decaied.

The repairing of them.

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to ſprinckle them with ſome ſweet licour, and ſo ſhut them vp with foode conuenient for them, till they be fully acquainted, leauing but little breathing holes about the Hiue, and keepe them thus encloſed three daies. Others do vſe to kill the eldeſt king, but that *Columella* alloweth not: but if the king be verie old, (the age of Bees ſhall ſhortly be ſhewed vnto you) and the people alwaies giuen to ſedition, then ſhall you chooſe a king from the Hiues, that haue moſt number of kinges. I told you before how you ſhould make them agree, when you put two ſwarmes together, leſt they ſhould deſtroy one another, that is, to take away the kings of the new ſwarmes.

CHENOBOSCVS. What if the whole ſtocke be decayed by taking the Hony, or by ſickneſſe, and diſeaſes, will they breede againe? or may they be repaired by art?

Breeding of Bees.

MELLESSEVS. By both, though the breeding, and ingendring of Bees, is verie doubtfull with *Ariſtotle*, neither dare he after his long diſputations, affirme any certaintie thereof: ſometime he reciteth the opinions of others, ſome thinking that they are ingendred by copulation, the Drone being the male, and the Bee the female: other ſaying, that they bring foorth yoong, but do not ingender, but that they gather their yoong ones, but from whence, they know not. Some ſay, from the flowres of *Marioram*: ſome, from the flowres of the Reede: others, from the Oliue flowres, becauſe when ſoeuer there is great plenty of Oliues, there is alſo great ſwarmes of Bees. There are againe that thinke the Drones to be ſo gathered, and the Bees to be breede onely of the kinges: and a little after, he ſaith, The yoong are the beſt breede, when the Honie is made, they labour with their legges the Ware, and with their mouth they caſt out the Honie into the Celles, and hauing laid their yoong, they ſit vpon them as Birdes doe. The little Worme, or Grubbe, being thus hatched while he is ſmall, lyeth crumpled vp in the Coame: afterward, ſprawleth abroad by his owne force, and falleth to feeding, cleauing ſo to the Coame, as he ſeemeth to be tied. The broode of the Bee, and the Drone, is white, of which commeth little Wormes, that after grow to Bees, and Drones: thus much, and more, ſaith *Ariſtotle*. In other places he would ſeeme to gather, that the Bees are ingendred of the kinges, ſaying that if this were not, there where no reaſon for ſuch thinges

as are

as are committed in their gouernment, and that the kinges by good reason remaine still in the Hiue without any trauaile, as only borne for breeding. Beside, they be greater, as though their bodies were purposely framed for generation: and they punish the Drones. It is not verie likely, that the children should punish the Parentes, therefore the Bees are not ingendred of Drones. Besides, it is a great argument, that Bees are ingendred without copulation, that their broode lieth verie small at the first, wrapped vp in the holes or Celles of their Coames, whereas all other Flies and Wormes that are bred by copulation, doe long ingender, and quickly lay in greatnesse, according to the kinde of the Worme. *Plinie* following herein *Aristotle*, affirmeth, that Bees doe sit as Hennes doe vpon their Egges: and that which is hatched, is at the first a small white Worme lying crosse the hole, and cleauing in such sort, as it seemeth to feede. The king is at the first, of a yellowish colour, as a chosen flowre, framed of the finest substance, neither is he bred a Worme, but with winges at the very first. The other common sort, when they begin to haue fashion, are called Nimphes, as the Drones, the *Sirens*, & the *Cepheus*, whose heades, if any man chance to pull off, they serue as a delicate foode to the breeders. After a little time, they powre into them foode, and sit vpon them (making a great noise as it is thought, to procure a heat necessary for their hatching) till breaking a sunder the filmes that encloseth euery one of them like an Egge, the whole broode commeth foorth. *Plinie* addeth, that this was seene and obserued at Rome, in a Hiue made of Lanterne hornes: the whole broode is finished in fiue and fourtie daies. As soone as they are brought out, they are taught to trauaile straight waies with their dammes, the yoong people waiting presently vpon their yoong king. There are sundry kinges bred for failing, and when they come to age, by common consent, the foulest and vntowardest of them are destroied. That there is two sortes, and what fashion they be of, I told you before.

CHENOBOSCVS. Let vs now heare some thing of their age.

MELLISSEVS. Their age (they say) may thus be knowen. Such as are not aboue a yeere old, doe shine, and looke as they were The age of Bees.

were newly oyled: the old ones be rouſſe, ſhagheard, wrinckled, lothſome, and ill fauoured to looke vpon, howbeit, for making of Coames, theſe are the beſt. *Ariſtotle* in his booke before mencioned affirmeth, that Bees liue ſixe or ſeuen yeeres, and that if a ſtocke continue nine or tenne yeeres, the keeper of them hath good lucke. *Plinie* writeth, that one ſtocke was neuer ſeene to continue aboue tenne yeeres, not though you ſupplie the places of the dead euery yeere with new: for commonly in the tenth yeere after the firſt hiuing, the whole ſtocke dieth. And therefore to auoide the miſchiefe of being vtterly deſtitute, it is good to encreaſe the number of your hiues, with new Swarmes euery yeere. And if ſo be your Bees, through ſudden ſtorme, tempeſt, or cold, lie dead vpon the ground, you muſt gather them together into a platter, or a broad baſon, and lay them in your houſe toward the South, ſpecially if the weather be good, after, caſt amongeſt them Aſhes of Figge tree wood, being ſomething more hotte, then warme, ſhake them gently vp and downe, ſo as you touch them not with your hands, and ſo ſetting them into the Sunne, they will (as *Varro* ſaith) quicken againe. To whom *Columella* ſubſcribing addeth, that ſuch Bees as you find dead vnder your hiues, if you lay them vp in a dry place all the Winter, and bring them out into the Sunne in the Spring, when the weather is fayre, and ſprinckle them with the foreſaid Aſhes, they will recouer within a few houres. They that liſt, may prooue it. I haue not hitherto tried it. *Marcus Varro* holdeth opinion, that Bees are ingendred ſometime of other Bees, and ſome times of the bodie of a yoong Bullocke putrified, reciting this Epigrame of *Archelaus*.

To reuiue Bees that be dead.

Making of Bees.

Of Steere that ſtrangled is are children ſtrangely breed,
Of Horſe ingendred is the Waſp, and Bee, of Bullocke ded.
The Horſes breed the Waſpes, the Bullockes breed the Bees.

For a yoong Oxe, or Steere, being ſtrangled, corrupted, and caſt into ſome ſuch place, where the putrified vapour can not breath out, and ſtore of hearbes and flowres agreeing with the nature of the Bees thruſt into the bodie, as Time, *Caſſia*, and ſuch like, wherewith the vapour may be tempered, you ſhall hereof quickly haue

Bees,

Bees, euen as you may of the body of a Horſe likewiſe ordered, haue Waſpes and Hornets. *Virgil* hath deſcribed both the maners of ingendring of Bees, and the firſt ſort, in theſe words.

This vſe, you wonder would, doth pleaſe the Bee,
The Chaines vnchaſt of Venus they deteſt:
To file themſelues with filthie lecherie,
They iudge vnmeete, nor will be ſo increaſt.
But from the plants and pleaſant flowres ſweet,
They fetch their tender broode, and hence they get:
Both King and Court, and what ſoeuers meete
To rayſe their walles, and Empyre vp to ſet.

The other maners, or repairing Bees by arte, the ſame Poet eloquently thus touched.

But if your Bees doe happen all to die,
The breeders gone, that ſhould their race renew:
His leſſon learne, whoſe skilfull cunning hie,
Made Bees, with bloud of Bullockes that he ſlew. &c.

Bees made of a Steere.

The maner how Bees are ingendred of a Bullocke, *Virgil* doth largely diſcourſe out of *Mago*, and *Demberitus*. You muſt frame a little houſe foureſquare, about ten cubites in breadth, and as much in height, with foure windowes, on euery ſide one. A young fat Steere being brought vp hither, his Noſe, his Eares, and all other open vents ſtopped, and filled with linnen, dipped in Pitch, muſt be beaten with numbers of clubbes to death, ſo as both the bones and the fleſh, may be broken without any bloud: for of the bloud, commeth the Bee. Afterward, the houſe being deepe ſtrawed with Time, and the Bullock laid vpon his backe, the doores and the windowes muſt be cloſe ſhut vp, and ſo plaiſtred, as there can no aire enter. Three weekes after, the windowes muſt be opened on euery ſide, ſaue where the winde bloweth ſtrongeſt, and the light and the aire let in: when it hath been well cooled and refreſhed, the windows muſt be ſhut vp againe, and made as cloſe as before: and being opened the eleuenth day after, you ſhall finde the houſe full of Bees, and nothing left of the Ore, ſaue the hornes, the heare, and the bones: they hold opinion beſides, that the kings are engendred of the braine, and the other Bees of the body.

PVLLARIVS. I like not ſo coſtly comming by Bees.

MELISSEVS. Of the same opinion is *Columella*: I tell you but the order of the old skilfull fellowes, you may choose whether you will trie it.

CHENOBOSCVS. I had rather you would tell vs what sicknesses and diseases they are subiect to, and how we may know the sicknesses, and in what sort to help them.

Signes of sicknesse in Bees.

MELISSEVS. I will willingly shew you. The signes and tokens of their health, as if they be liuely, quicke, and many in number: if their workmanship be neately, and equally wrought: if they go about their businesse cherefully; and if they looke faire & smooth. Their signes of their not being in helth, as if they looke lothsomely, be rosse and heary, except in the time of their labour, when they commonly looke like labourers, or be drousie, or if you see them carrying out of dead carkasses, and following the corses, after the maner of mourners, or that you heare no noise, nor sturring amongst them. These signes when you see, *Columella* willeth you to giue them meate in little troughes of Reedes, specially Hony sodden, and ground with Galles, or Roses. You must also to heale them, perfume them with *Galbanum*, Reazins, or old strigges of Grapes. If the king happen to die, the common people waile and mourne with great heauinesse, neither wil they make any prouision for their owne sustenance: and therefore if you feede them not, they will famish themselues.

PISSINARIVS. With what diseases are they most vexed?

The diseases of Bees and the remedies.

MELISSEVS. They are many times infected with the pestilence, against which you haue no other remedie, then to seuer the hiues farre asunder. Their chiefest and earely sicknesse, is in the beginning of the Spring, when the Spurge and the Elme doe both flowre: for as vpon new fruits, so at their first comming abroad, entised with these new flowres, being almost hunger starued with the winter passed, they feede so greedilie, as they fall into a Flix, wherof if they be not quickly remedied, they die. For Spurge doth loose the bellies of all other creatures, but the flowres of Elme bringeth onely the Flix to the Bee. And therefore in such Countries, where there is great plentie of these trees, the Bees continue but a while. *Columella* teacheth you against this disease, to

giue

giue them Rosemary sodden with Water and Hony: some againe vse to giue them the stale of men, or Bullocke: as also the graines of the Pomegranate beaten, and sprinckled with Wine, or Raizins, with the like quantitie of Manna kneaded together, and giuen them in sharpe Wine, boiled in an earthen vessell, and powred into little Reedes. *Virgill* describeth an hearbe called *Asmellus*, with a yellow stalke, and a purple flowre, the iuyce of whose roote, being sodden in old Wine, and strained out, is very good to be giuen them. *Columella* out of *Higinus*, teacheth to remedy them in this sort. First, to take out all the rotten and corrupt Coames, & to giue them fresh meate, and after, to perfume them with smoke. It is good also to put to a decaied Hiue, a new swarme, as I said before. Many times, they die of a disease that they call the great deuouring, which happeneth when they haue made so much Warr, as they thinke they shall be able to fill, and afterwards, by storme and tempest, many of them be destroied, so that the remaine suffiseth not to fill the Coames, whereby the emptie partes of the Coames becommeth rotten, and so by little and little infecteth both the Hony, and the Bees. For which the only remedy is, either to put in a new swarme to fill vp the celles, or if you haue no such swarmes, to cut away part of the Coames before they come to be naught, which you must do with a very sharpe knife, for feare of displacing the rest of the Coames. A cause beside many times of the death of the Bees, is their too much prosperitie, as when there are diuers yeeres great aboundance of flowres, and the Bees so busie in their feeding, that they forget their breeding, who ouerweerying themselues with trauaile, they dye, not leauing any brood behind them. It is called *Blapsigonia*, when either by sicknesse, slouthfulnesse, or barrainnesse, they leaue no fruit behind them. To remedy this, it is good euerie third day, to shut vp the Hiues close, leauing but very small holes, out of which they can not creepe, so shall they be forced to looke to their broode, when as they can not otherwise range abroade. Many times besides they are the cause of their own deathes, when perceauing their Hony to goe awaie, they feede too greedily. Their owne Hony doth also many times destroy them: for being touched with it on the back, they are so limed, as they can not sturre: and Dile doth not onely kill Bees, but also all other like

creatures, Flies and Wormes. They hate all filthy sauours, and sting such as smell of oyntments: they are often besieged with Waspes, Hornets, and great Gnattes: the Swallow doth oftentimes spoile them: the Woodpecker doth with his long toong, thrust into the hiue, licke vp their hony, and diuers other byrds (as I haue said before) annoy them. The Tode bloweth them, and sucketh them vp at their owne doores, who sustaines no hurt by their stinging. Sheepe are also hurtfull and troublesome to Bees, in whose fleeses, they tangle themselues, as they can hardly get out.

To keep Bees from Beares.

In the wast woods of *Sarmatia*, where they make their Coames in the hollow Firre trees, the Beare, for the desire of the honie, climeth vp to them, and robbeth them. Against these Beares, the Beekeepers vse to hang before their hiues great maules & beetels, which the more angerly the Beare shoueth aside, with the greater sway they come vpon his head againe, whereby the Bees are well defended. The sauour of Creuisses, if any man boile them neere to them, doth kill the Bees: the *Ecco* is also a great enimie to them, that with hir resounding, doth shake and feare them, and hurtfull to them is also the mist. The Spyder is also their deadly foe, and where they can preuaile, make hauocke of the hiues, setting their webbes and nettes in euery corner, to ouerthrow the poore Bee. The night Butterflie, that flieth about the candell, is hurtfull to them two waies: for they both consume the Coames, and of their excrements left behinde them, is ingendred mothes, in the verie wood beside, breedeth a Woorme that consumeth the Wax. These hurtfull Uermine, the carefull keeper must diligently labour to destroie, and preuent, and looke that he pluck vp all such bushes and plantes, as offendeth them, not suffering any such to growe neere them: and to keepe all hurtfull cattell from them, letting them alwaies haue such things at hand, as they most delight in. For the keeper hath worke enough to turne him to all the yeere long: for after the twelfth of March, their Hiues must be opened and looked vnto, that all the rubbish and filth of winter may be swept away, and the Spiders that spoile the Coames, plucked out, and that they may be smoked wt smoke made of Dredoung, or linnen (as I spake of before:) for smoke is of nature profitable to ỹ Bees. And though it be troublesome for the time to thē, yet is it certainly very hollsome

Hiues purged in the spring.

Smoke good for Bees.

for

for them. The Wormes, besides Mothes, and Butterflies, must be killed, which cleauing like a pestilence to the Combes, do fall away if you mingle with your doung the marow of the Ore, and laying it vpon the coales, make your smoke: with this order shall your swarmes be kept still in health, and shall be better able to abide their labour: this kinde of purging them must be often vsed, from the Calends of Aprill, till the fall of the Leafe. The keeper must keepe himselfe (as I said before) cleane from drunkennesse, leacherie, and all vncleane and strong sauering sents: for they loue to be purely and faithfully looked vnto (as hath been often said.) About an eight and fortie daies after the entring of the Sunne into Aries, they begin to swarme, and at the same time do many stocks perish, that haue few and diseased Bees. About the same time, are bred in the vttermost part of the Combes a broode of a great biggnesse: which some count to be the kings: others call them Brees, because they course and chase the Bees, and therefore thinke it good to destroy them. Oestri. From the rising of the seuen Starres, that is, from the fifth Ides of May, till the tenth, or the twelfth of June, they vse to cast their swarmes, at which seasons, they must be carefully looked vnto for going away: from that time, till the rising of the Dog, or that comming in of the Dog daies, which is almost thirtie daies (as *Columella* sayth) the Haruest is both for Hony, and Corne. Times for swarming.

In what sort the Hiues are to be driuen and gelded, is shewed before: but at this time, and till the twelfth of September, the Hiues must be opened euery tenth day, and smoked. The hiues being thus smoked, you must refresh the Bees, with sprinckling and casting into the emptie partes of their Hiues, verie fresh and cold water: and if any thing remaine, not washed away, you must sweepe it out with a Goose wing. Besides, the Mothes, if they appeare, must be sweeped away, and the Butterflies killed, which dwelling in the Hiues, are commonly a bane to the Bees: for they both eate vp the Ware, and with their doung, do breede a kinde of Woorme that they call Hiue Mothes. These Butterflies, as *Columella* teacheth, you may when the Mallow flowreth (at which time there is greatest number of them) destroy in this sort. You must haue a vessell of Brasse very high and straight, narrow necked and mouthed, in the To destroy Butterflies.

bottome whereof, you must haue a light, and set it in the euening neere vnto your hiues, and you shall see all the Butterflies straightwaies fall to the light, and while they play about the flame, they burne themselues, while they can neither get vp, by reason of the straightnes, nor shun the fire, by meanes of the brasen walls. Betwixt the risings of the Dogge, and of the Bearward, which are almost fiftie daies, you must take good heed your Bees be not spoyled by Hornets, which at that time lie in waite for them, euen at their owne doores. After the rising of the Berward, about the twelfth, or fourteenth of September, is the second harueſt of your Hony: from that time, till the setting of the seuen starres, which is about fortie daies, the Bees do prouide for their winter store, of the flowres of Heath, Tamariske, and other bushes and shrubs, of which prouision you must take nothing, least you discourage them, and driue them away: from the setting of the seuen starres (which is about the entrance of Nouember) the beginning (if we may beleeue *Plinie*) of winter. The Bees liue all the winter long, vpō such store of Hony, as they haue laid vp: at this time, the Hiues must be opened & cleansed of what so euer filth is in them, and diligently ordred, for during the winter time, your Hiues must neither be opened nor stirred, and therefore in the end of Summer, while the weather is yet milde and temperate, your Hiues being made cleane in some sunnie day, see that you thrust vnder them, certaine close couers that may reach to the very bottome of the Toames, not leauing any voyde space, whereby the Hiue shall be the warmer. When you haue this done, close vp euery rift and open place with Claie, and Bullocks doung mingled together, dawbing it all ouer without, leauing onely a little hole to come in and out at. You must arme them also against the colde tempest, with good couertures of Straw and Bowes. Some vse to put in the Hiues small Byrds being drawen, which with their feathers keepe the Bees warme all the Winter, and therewith, if they happen to lack foode, they feede themselues sufficiently. Yea, it hath been seene they haue so fed vpon them, as they haue left nothing but the bare bones: howbeit, as long as their Hony suffiseth, they neuer meddle with the birds. It is very good and necessarie (as I told you before) to set them meate in little Troughes or Reeues, to defend themselues against famine.

No sturring of Bees in winter.

When

When Winter is past, in the space of fortie daies, they make an end of all their Hony, except their keeper deale the more liberally with them. It hath often also beene seene, that their Coames being emptie, they haue continued fasting, till the Ides of Februarie, and cleauing to the Coames, as if they were dead, haue yet retained their life: but least they should loose it altogether, it is good to powre them in some sweete licours by little pipes, whereby they may sustaine their liues, till the Swallow with hir appearing, promise a welcomer season.

After which time, when the weather will suffer them, they begin to seeke abroad for them selues: for after the Sunne is in the *Aequinoctial* they neuer rest but trauaile painefully euery day, and gather flowres, and necessaries for their breeding.

Besides, because few places are so fruitfull, as they yeeld flowres both Summer and Winter: therefore in such places, where after the Spring and Summer (at which times, both Beanes, Rapes, Willowes, and other plantes and hearbes, in euery place do flowre, the flowres doe faile, they are carried of diuers (and that in the night, as I told you before) into such places, whereas there is good store of late flowring hearbs, as Time, wilde Marierum, and Sauery, wherewith they may be fed, gather foode at their pleasure, and, as *Columella* writeth, that Bees in the old time, were brought from the feelds of *Achaia*, to the Pastures of *Athens*, and so transported in diuers other places. So may we with vs carry them, from places where the flowres be consumed in the Spring, to the Summer flowres, as Clouer, and such other: and after that, about the end of the Summer, to places furnished with Heath, Tamariske, and such other late bearing flowre. For the auoiding of this inconuenience of carrying from place to place, I will shewe you in what sort I haue ordered my Beeyard at home. And because Master Herbach hath shewed you before in his Garden many good hearbes, and yet not whereto they serue, I will shewe you a fewe plantes that I haue set about my Bees, seruing both for their commodity, and the health of my houshold. I haue chosen of a great number, such as be most necessarie, and of greatest vertue: whose speciall vertues, and wonderfull workings, giuen onely by the most gratious and bountifull framer of the world, and being as it were

sucked and drawen out by the carefull toile and diligence of the Bee, must needes adde a greater perfection to their Hony, and their Ware, I haue first inclosed the Yard, where my Bees stand, with a Quickset hedge made of Blackethorne, and Honysocle, the one of them seruing the Bee with his flowres at the beginning of the Spring, and the other at the later end of Sommer. The first, the Blackethorne. Blackethorne beareth a pleasant white flowre, so much the welcomer to the Bee, as it is the very farewell of the Winter: for he commonly flowreth not till the Winter be past. These flowres newly gathered & steeped all a night in the best & strongest Wine, and afterwards distilled in *Balneo Marie*, being drunke, helpeth any paine in the sides, as hath been certainely proued. *Tragus* the Germane confesseth, that with this onely water, he hath cured all manner of paines about the stomacke, hart, or sides. Wine made of the Sloe, and preserued vntill July, or August, when the bloudie flixe most raigneth, is a soueraine medicine against it. The other, Woodbine. the Honysocle, or the Woodbine, beginneth to flowre in June, and continueth with a passing sweete sauour, till the very later end of Sommer. The water thereof distilled and drunke, two or three daies together at times, asswageth the heate of the stomacke, helpeth the Cough, and shortnesse of breath. Ragges of linnen dipped therein, and applied, do heale any heate of the Eyes, or Liuer. Nert vnto my Hiues, I haue planted the sweete herbe *Melissa*, or *Api-* Balme. *astrum*, called in English, Balme, with a square stalke, a leafe like a smooth Nettle, and a yellow flowre, and groweth almost in euery Hedge, an herbe well knowen to the old Women in the Countrey, and greatly desired of the Bee, This *Melissa*, or Balme, sodden in white Wine, and drunke two or three mornings together, purgeth the breast, helps the shortwinded, comforteth the hart, driueth away the dumpish heauinesse, that proceedeth of Melancholy, helpeth the falling sickenesse, and almost all other diseases: being chopped small, and steeped a night in good white Wine, and afterwards distilled, is greatly commended, not onely in deliuering women from their pangues and griefes of the Mother, being drunke to the quantitie of three or foure Spoonefulls, but also cureth the paines or fainting of the heart, called commonly the passion of the hart. *Cardanus* greatly commendeth this herbe, for the comforting

and

and reuiuing of a decaied memorie, and affirmeth, that it is a causer of sweet and pleasant sleepes. Next vnto this haue I growing that sweet and precious herbe *Angellica*, whose seedes I first receiued from that vertuous and godly Lady, the Lady Golding in Kent, a gentlewoman that setteth hir whole felicity in the feare and seruice of the Almightie: this herbe is in flowre, seede, leafe, stalke, and sauour, so like vnto Louage, as they may hardly be discerned the one from the other, the leafe doth in manner resemble the Figge leafe, sauing that it is more iagged, and indented round about. If any man be suddenly infected with the pestilence, feuer, immoderate sweat, let him take of the roote of this *Angellica* in powder, halfe a dramme, and putting to it a dramme of Treacle, mingle them together with three or foure spoonefulls of the water distilled of the said roote, and after he hath drunke it let them lie and sweat fasting, for the space of three houres at the least: thus doing, by the helpe of God, hee shall escape the daunger: the roote steeped in Uinegar, and smelt vnto, and the same Uinegar some times drunke fasting, doth preserue a man from the pestilence: to be short, the roote and the water thereof, is soueraine against all inward diseases, it scowreth away the collections of a Pluriſy beginning, helpeth vlcered and corrupted Loonges, and is good against the Collicke, Strangurie, and restraint of Womens Purgations, and for any inward swelling, or inflamation, the iuice thrust into a hollow tooth, asswageth the paine, the water dropped into the eare, doth the like: the said iuice and water put into the eie, quickneth the sight, and taketh away the thin skins and rines that coureth the eie. Besides, a most present remedy in all deepe and rotten sores, is the iuice, the water of the powder: for it clenseth them, and coureth the bone with good flesh. It was called in the old time *Panacea*, or *Healeal*. Next vnto this *Angelica*, haue I growing in great plentie, *Cardus Benedictus*, or blessed Thistle, which the *Empirickes*, or common *Proaliſers*, doe commend for sundrie and great vertues, affirming that it was first sent out of *India*, to *Fredericke* the Emperour, for the great vertue it had against the Headach, or Megrime, being eaten or drunken. Likewise they say, it helpeth against the dasing, or giddinesse of the head, maketh a good memorie, and restoring the hearing. For the proofe

Angellica.

For want of Treacle you may take the whole dráme.

Cardus Benedictus.

proofe of his great force against poyson, they bring forth a young maiden of *Pany*, that hauing vnwares eaten of a poysoned Apple, and there withall so swollen, as no Treacle, nor medicine could cure hir, was at the last restored to health, by the destilled water of this Thistle: and likewise that a boy, into whose mouth as he slept in the feeld, happened an Adder to creepe, was saued by the drinking of this water, the Adder creeping out behind, without any hurt to the child. In fine they affirme, that the leaues, iuice, seede, and water, healeth, all kind of poisons, and that the water hath healed a woman, whose brest was eaten with a Canker to the very ribbes.

Penigrasse. I haue also set into this little peece of ground, great store of the hearbe called *Namularia*, or Penigrasse, which creepeth close by the ground, hauing vpon a long string little round leaues, standing directly one against the other, and a yellow flowre, like the Crow-foot. It is a soueraine hearbe for healing of woundes, not onely outward and greene wounds, but also inward sores and vlcers, specially of the Loonges, whereof there hath been good proofe. *Tragus* affirmeth, that he hath seene dangerous and desperate wounds cured with this hearbe, being boiled with Honie and Wine, and drunke. It healeth erulcerations of the brest and Loonges, and may be well giuen to those that Cough, and are short breathed, and to little children diseased with the dry Cough, who by reason of their tender age may take no stronger medicine. I haue seene good plentie of it growing by the shadowy ditches, about great Peckam in Kent. I haue beside there growing *Scabious*,

Scabious. an hearbe that groweth commonly in Corne, with a iagged leafe, lying round vpon the ground, and thrusting out in Summer a long stalke, with sundry branches, the flowre growing in blew knops, or tuftes, like hony coames. This hearbe being sodden with Wine, and drunke, doth helpe the Plurisie, against which diseases, the women of the countrey, that many times take vpon them to be great *Doctresses* in Phisicke, do still the water thereof in May, and giue it to be drunken at each time, two or three spoonfuls, not onely against the Plurisie, but against inward impostemes, coughes, and all diseases of the brest. Against impostemes, diuers (as *Tragus* writeth) doe make this composition, they take a handfull of *Scabious*, the hearbe dried, of Liquerisse cut

small

ſmall an ounce, twelue Figges, Fenell ſeede an ounce, Aniſeede as much, Dias halfe an ounce, theſe they lay all a night in water: the next day they boile them, till a third part be conſumed, and after making it ſweet with Suger, or Honie of Roſes, they giue it warme in the morning and euening, wherewith they ſay, the impoſteme is ripened, made ſoft, and cought out.

PVLLARIVS. I remember, that paſſage by the houſe of that Honorable Baron, the Lord Cobham (whoſe houſe you ſhall ſeldome ſee without great reſort, by reaſon of his noble diſpoſition, and honourable intertainment that he giueth to all commers) I chaunced to ſee in his Parke at Cobham, a certaine herbe called *Veronica*, whereof I haue heard vertues. Veronica.

MELLESSEVS. That can I alſo ſhew you amongſt the hearbes that I haue about my Bees: it is called of ſome *Feucrium*, and *Veronica*, as it is ſuppoſed of a certaine French King, who was thought by the iuice thereof, to be cured of a great Leproſie, it is called in Engliſh Fluellin: it creepeth low by the ground, as Penigrall doth, & beareth a leafe like the Blackthorne, with a blewiſh ſpeckled flowre, with a ſeede incloſed in little powches, like a ſhepheards purſe, and groweth commonly vnder Okes. *D. Hieron* writeth, that the force thereof, is marueylous againſt the Peſtilence, and contagious ayres, and that he himſelfe hath often times proued. The water of the hearbe ſteeped in white Wine, and diſtilled there withall, he hath cured ſundrie times, hot burning and peſtilent Feuers, as well in yoong men, as in old, *Hieron Tranſchweyg*, commended it to be ſinguler good for all diſeaſes of the Spleen: the ſhepheards of Germany, giue it with great profite made in powder, and mingled with Salt, to their Cattell diſeaſed with the Cough: being ſteeped in Wine and diſtilled, it is a moſt preſent remedie in all peſtilent Feuers: being giuen two ounces thereof with a little Treacle, and after laied warme in bed, and well couered, it expelleth the poiſon by ſweat, and driueth it from the hart. The water of this hearbe taken certaine daies together, two ounces at a time, helpeth the turneſicke giddineſſe of the head, voideth fleame, purgeth blood, warmeth the ſtomacke, openeth the ſtopping of the Liuer, healeth the diſeaſes of the Loonges, and the Spleen, purgeth the Vaines, the Matrice, and the bladder,

it

it driueth out sweat and venome, helpeth the Jandise, the stone of the Reines, and other greeuous diseases. You shall also haue amongest these plantes of mine, the good sweet hearbe *Cariphilata*, or of some *Benedicta*, of others, *Sanamanda*, called in English *Auens*, whose roote whether it be greene, or old, resembleth the Cloue in sauour: the leafe is iagged, rooffe, of a darkish greene, and not much vnlike to *Agrimony*: the flowre is yellow, and after the falling thereof, leaueth a prickly knop like a Hedgehogge: the roote, the longer it hath growen, the sweeter it is: the speciall vse of this roote in some countries, is to be put in Wine in the Spring time: for it maketh the Wine to tast and sauour very pleasantly: which Wine, as many hold opinion, doth glad the hart, openeth the obstruction of the liuer, and healeth the stomack, that is ouer burdened with cold and grosse humours: this roote boiled in Wine and giuen warme, doth ease the greefe of the stomacke, or the belly, proceeding of either cold, or winde. Hard by this hearbe, haue I planted the great water *Betony*, called of some *Ocimastrum*, of *Mathiolus*, *Scrophularia Maior*: it hath a great square stalke, and bigge leafe indented round about: the flowre is in colour Purple, and in fashion like the shell of a Snaile: it flowreth in June and July, and groweth most by waters in shadowy places. *Tragus* teacheth to make a speciall ointment thereof, seruing against all Scabbes and Sores, wherewith he saith, he hath seene people so mangie, as they haue seemed euen Lepers to be cured: his ointment is this. Take the hearbe, rootes, and all, gathered in May, washed and well cleansed from all filth, stampe it, and straine out the iuice, and keepe it in a narrow mouthed Glasse well stopped, wherein you may keepe it a whole yeere, and when soeuer you list to make your ointment, take of the same iuice, of Wax, and Oyle, of each a like quantitie, and boile them together vpon a Chafindish of coles, stirring them well, till they be incorporated, and so vse it. *Mathiolus* teacheth to make a singuler ointment thereof against Kernels, the Kings euill, and the Hemerodes: his order is this. You must gather the rootes in the end of Sommer, and after that you haue made them verie cleane, stampe them together with fresh Butter, and putting them into an earthen vessell close couered, set them vp in some moist and dampish place, suffering it there to remaine

Auens.

maine for the space of fifteene dayes: afterwardes, let the same Butter be melted with a soft fire, and being well strained, lay it vp for your vse. There haue I also an other excellent hearbe, called in Latine *Cardiaca*, I knowe no name for it in English, except you will call it Mother woort, and indeede it is the very true Mother woort: it groweth by high wayes, and neere to stone walles, it hath a leafe something like a Nettle, but more indented, the leaues next to the roote beeing iagged like the Crowfoote: it groweth bushing with many stalkes, I haue seene it plentifully in Surry, and some store of it about Maidstone in Kent: it is of great force against any sickneſſe of the hart, wherof it taketh his name: it helpeth Crampes, and Palsies, it cleanseth the breast from fleame, it killeth Wormes in the the body, openeth cold obstructions, prouoketh vrine, and Womens courses: being made in powder, and a spoonefull of it giuen in Wine, it wonderfully helpeth the hard labours of Women. Cardiaca.

CHENOBOSCVS. I meruaile you haue no store of *Betony* also: for I haue seene the Bees labour diligently vpon it, and haue heard, that it is of great vertue. Betonie.

MELLISSEVS. I haue great store in deede of it, but that I forgat to tell you of it, it is knowen so commonly, as I need not to describe it vnto you: whosoeuer is troubled with breaking of winde, and weaknesse of stomacke, and those whose stomackes retaine not their meate, or whosoeuer feeles sower belching from his stomacke, and is therwith often troubled, let them continually vse *Betony*, either the hearbe and flowre boyled in Wine, or the water distilled, or the Conserue (as they call it) of the flowres. And if so be you lacke the Conserue, or the water, you may vse the dry hearbe in powder, either by it selfe, or with hony: women that are troubled with the Mother, may vse this hearbe for their remedie. To be short, the flowre, leafe, and roote of *Betony* sodden and drunke, or howsoeuer you will, in Electuarie, Conserue, Sirop, Pocion, or Powder, as you list to take it, is singuler good in the diseases of the Stomack, Liuer, Spleene, Kidnies, and Bladder, it freeth the Matrice from obstruction, & draweth from thence all hurtfull moistures. For consumptions of the Loonges, Coughes, Dropsies, continuall and putrified Feuers, proceeding from the Stomacke,

Stomacke, boile the leaues and flowres of *Betony* in Honied water, and you shall haue present helpe. Thus haue I shewed you what kind of Hearbes I haue planted about my Bees, to the end they should haue foode at the hand of the sweetest, and the holsomest: I haue shewed you also the vertues of the hearb, the flowre, and the water, that you may vse for your owne commoditie: onely this warning I giue you, that you doe not distill them, as the vnskilfull doe, in stills of Lead, Tinne, and Brasse, which poisoneth and spoileth the water, but in Glasse Stils, set in some vessell of water vpon the fire, whereby your water shall be most perfect and holsome. The difference of these two distillings, appeareth plaine: for example, in Wormwood, which if you distill in your common Stillatories, the Water commeth out sweet, hauing gotten a corrupt qualitie by the nature & corruption of the mettall: whereas, if you doe it in Stils made of Glasse, looking that the Glasses be well closed round about, you water shall haue the very tast, sauour, and propertie of the Hearbe. With these Glasse Stils you may so order your fire, as you may draw out of euery hearbe, the Water, Spirite, Oyle, and Salt, to the great comfort of sicke and diseased persons. I set besides great plenty of Sauerie, Heath, Tamariske, and without the Beeyard, Broome, in whose flowres the Bee much delighteth. I keepe you heere peraduenture too long in so small a matter.

Small is the thing, yet small is not the gaine:
If gratious gods permit, and Phœbus not disdaine.

As the heathen Poet writeth: but I will heere make an end of my talke, that hath perhaps been thought too long.

FINIS.



Old Engliſh Rules, for *purchaſing Land.*

Who ſo will be wiſe in purchaſing,
Let him conſider theſe points following.

FIrſt ſee that the land be cleare,
In title of the ſeller.
And that it ſtand in danger,
Of no womans dowrie.
See whether the tenure be bond or free,
And releaſe of euery feoffee.
See that the ſeller be of age,
And that it lie not in morgage.
Whether a taile bee thereof found,
And whether it ſtand in ſtatute bound.
Conſider what ſeruice longeth thereto,
And what quitrent there out muſt go.
And if it be come of a wedded woman,
Think thou then on couert baron,
And if thou may in any wiſe,
Make thy Charter with warrantiſe.
To thee, thine heires, aſsignes alſo,
Thus ſhould a wiſe purchaſer do,

Finis.

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